DOCUMENT RESUME

ED 167 150 IR 006 914

AUTHOR de Grolier, Eric
TITLE Development of the National Documentation Centre. Hashemite Kingdom of Jordan.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France).
PUB DATE 77
NOTE 72p.; Parts may be marginally legible; Best copy available

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Developing Nations; *Documentation; *Information Networks; Information Systems; *Library Cooperation; Library Services; *National Programs; *Program Development
IDENTIFIERS *National Information System

ABSTRACT

The development of a National Documentation Centre in the Hashemite kingdom of Jordan's East Bank is described in five major sections including basic data (geographical background, historical background, population, natural resources, services, finance, research and development, and planning); the information situation (user studies, media, data banks, and libraries); recommendations; unsettled problems; and conclusions. A list of institutions and/or persons visited is appended. (JVP)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED167150

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

HASHEMITE KINGDOM OF JORDAN

DEVELOPMENT OF THE NATIONAL DOCUMENTATION CENTRE

BEST COPY AVAILABLE

by Eric de Grolier

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Edward Wegman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Report prepared for the Government of the Hashemite Kingdom of Jordan by the United Nations Educational, Scientific and Cultural Organization (Unesco)

Reproduced in microfiche
by permission of Unesco
(c) Unesco 1977

UNESCO

IR006914

Technical Report
PP/1975-76/4.221.4
FMR/PGI/77/123(de Grolier)
15 February 1977

© Unesco 1977
Printed in France

CONTENTS

	Page
INTRODUCTION	3
Preliminary remarks	3
Objectives and scope of the report	3
Sources	3
Lecture	5
Acknowledgements	5
I. BASIC DATA	5
Geographical background	5
Historical background	5
Population, human resources	7
Population growth	7
Regional distribution	7
Towns, villages, nomads	8
Manpower (labour force)	10
Literacy and level of education	14
Migrations, brain drain	17
Natural resources, production	17
Water	17
Agriculture	18
Mineral resources, mining, quarrying	19
Power supply, electricity	19
Building materials and construction	20
Manufacturing industries	21
Paper and printing	22
Services	23
Communications	23
Computers	25
Education	25
Health, social services	27
Social services (other than education and health)	28
Trade unions, industrial, commercial and other associations	28
Government: legislative, executive and judicial branches	29
Finance	30
Banking	30
Public finance	31
Prices and salaries	33
Research and development	34
Planning	35
II. THE INFORMATION SITUATION	37
Users studies	37
Media	37
Radio and television	37
Cinemas, films	37
The Press	38
Publishing and bookselling	38
Legal deposit, national bibliography	39
Data banks	40
Libraries: general (encyclopaedic)	40
National library	40
Public libraries	41
School libraries - media centres	44
Academic libraries	47

		Page
	Specialized libraries, documentation and information centres and services	49
	Archives and records	52
	Museums, antiquities, sites	52
	The Information system	53
	Co-operation and co-ordination: inside Jordan	54
	Co-operation and co-ordination with the exterior world	56
III.	RECOMMENDATIONS	56
	Overall policy, budgets, planning	56
	Infrastructure	57
	Transport	57
	Communications	57
	Computers	57
	Publications	58
	Information sub-systems	58
	Public libraries sub-system	58
	Media centres sub-system	58
	Academic libraries sub-system	58
	Archives sub-system	59
	Museums sub-system	59
	Sectoral sub-system	59
	Functions and organization of the national documentation centre	61
	Information manpower	62
IV.	SOME UNSETTLED PROBLEMS	63
	Location of NDC future building	63
	The NDC budget and a NATIS/UNISIST budget for Jordan	64
	Technical problems	64
	Legislation	65
V.	CONCLUSION	65

Appendix: List of institutions and/or persons visited

INTRODUCTION

PRELIMINARY REMARKS

Objectives and scope of the report

1. This report has been prepared in fulfilment of Article 1 of the Unesco Consultant Contract No. 284035 which required the writer to:

"Proceed to Jordan:

1) to study the actual situation of the library and documentation services in Jordan;

2) to advise on the development of the National Documentation Centre; the consultant should analyse the rôle and the needs of such a centre keeping in mind existing documentation services;...".

2. These terms of reference left a rather wide margin to interpretation, and I decided to interpret them in their widest meaning, so far as the concepts of "library and documentation services" were concerned, trying to obtain a comprehensive picture - so far as this was possible, owing to limitations of time and available sources - of what could be called the "Global Information Network" (using this fashionable label) within the country as well as its relation to the Arab countries and the outside world, including such fields as printing, publishing and bookselling; archives; museums; scientific, technical and economic information - and even, albeit superficially, the mass media.

3. Statistical materials published by the Hashemite Kingdom of Jordan include the "West Bank" - i.e. that part of Palestine which remained in Arab hands after the Jordanian-Israeli Armistice Agreement, 3 April 1949 - as well as the "East Bank" - i.e. the territory which formed since 2 March 1921 the Emirate of Transjordan, and which became on 25 May 1946, the Hashemite Kingdom of Jordan. However, no reliable data could be obtained in Amman on the "West Bank" after 1967. Besides, organizations located there could not at present be connected by other than informal links with the Jordan National Documentation Centre, when it will be operational. Under these conditions, I decided to confine my report to the "East Bank" only.

Sources

4. The documentation available in Paris on Jordanian information services was scanty. I tried to assemble as many documents, printed or (more often) processed, as possible, but it soon became evident that unpublished data obtainable only by visiting the organizations and people concerned, was often indispensable. As visits were also required to obtain a clear picture of actual conditions, I embarked on a programme for surveying at least the most important institutions connected with "information" in the wide meaning of the word defined above (para.2). It would have taken at least two months, and not one, to fully execute this plan. Consequently, the present report must be considered as a sketch of the major components of the future National Information System of Jordan. In fact, one of the first tasks of the National Documentation Centre will certainly be to survey more extensively - and in depth - the organizations included in this preliminary survey, as well as others which I could not visit.

5. Planning a NATIS (National Information System) requires determining the political, economic and social trends (not forgetting the demographic trend), the objectives of the government and of other decision-makers in the country and

the priorities adopted for the development plans as well as an assessment of available communications facilities.

6. Books on Jordan written in English, French or German are not numerous, and the consultant was unable to use the more extensive literature in Arabic. For an historical perspective, I would recommend the report prepared by the IBRD mission The Economic Development of Jordan, written in 1955 and published two years later by The John Hopkins Press, Baltimore. Miss A.M. Goichon published in 1967-1972 two bulky volumes on Jordanie réelle (Paris: Desclée de Brouwer, and later Maisonneuve et Larose) which contain a mass of data, the majority of which describe the situation up to 1965-1966. Very useful, although restricted to one district is the Ph.D. thesis prepared by Peter Gubser, Politics and Change in Al-Karak, Jordan (London: Oxford University Press, 1973 - ISBN 0 19 215805 8), based on field work from January to November 1968, which contains valuable material on many aspects of Jordanian provincial life.

7. The majority of available data is contained in a mass of special studies and reports, written by numerous consultants and experts, during the last twenty years or so, a large majority of them at the request of the Jordanian Government, and which are widely dispersed in one or the other of the Jordaniana collections (Royal Scientific Society, University Library, Library of the Press and Publications Department of the Ministry of Culture and Information, Natural Resources Authority, Municipal Library, Faculty of Agriculture of the Jordan University, etc.) or in the relevant offices of the various ministries. In spite of valiant efforts from many sides, including the now defunct Jordan Research Council, this extremely valuable documentation remains partly unindexed (or indexed according to somewhat unreliable methods).

8. Statistical material is collected, in principle, by the Department of Statistics, attached to the Ministry of Industry and Trade. However, this centralization is not in fact complete: for instance, educational statistics are prepared and published separately by the Educational Statistics Section of the Directorate of Educational Planning and Research at the Ministry of Education; other statistical data are available at the National Planning Council (in various departments or sections), at the Central Bank, etc. Due to the lack of qualified personnel (the present Statistical Training Centre is in course of reorganization and expansion with UNFPA assistance), statistical surveys are not always reliable. On the whole, and with the exception of financial statistics, for which the Research Department of the Jordan Central Bank has the required staff and authority, this important component of the Jordanian NATIS is badly in need of improvement.(1)

9. The consultant was unable to collect figures on the financial resources allocated to information services and systems in Jordan except through personal contacts with civil servants concerned. Some acquisitions budgets are available in libraries (not always corresponding to the amount of money actually spent), but the personnel budget is normally unavailable. This is because the practice of attributing a separate budget to information services is almost unknown in Jordan; it is thus not a statistical gap, but something related to present management practices within the administration.

10. Finding good maps is a problem. With French bilateral assistance, a new National Geographical Centre is now to be established, under the protection of the Army, and will be entrusted with the task of concentrating all mapping work (except that connected with land registration, which will remain within the competence of the Department of Lands & Surveys). When this project becomes operational - that is, within two or three years - the situation will, hopefully,

(1) The educational statistics are extremely detailed and - judged from the exterior - reliable. But budgetary data are here inadequate.

improve if circumstances permit that security classification rules also be changed.

Lecture

11. Under the auspices of the Jordan Library Association, and thanks to the hospitality of the Municipality of Amman, I gave a lecture on "The Jordan Information System within its International Context", on 23 May 1976. About 40 persons, mainly librarians, attended the lecture, and there was a lively discussion.

Acknowledgements

12. It is impossible to name here the numerous persons who helped the present writer in accomplishing his task. Of course, I am the only one responsible for its errors and omissions, as well as for the opinions herein expressed. It would be unfair, at least, not to cite here the officers of the Jordan Library Association: especially its President, Mr. Hilmi M. Foudeh, its past President, (and Founding Father) Mr. Mahmud Al-Akhras, its Secretary-Editor, Mr. Sudqi Dahbour, its past Secretary-Editor and past President, Mr. Farouk Mo'az, its "Founding Mother", Miss Hanneh Majaj, and Mr. Farouk Mansour, for their unremitting efforts in assisting my work. To Mr. Husni El-Shiyyab, in charge of relations with international organizations at the Ministry of Culture and Information, and Mrs. Haya Abu-Khoura Al Adwan, Librarian of the Jordan Research Council, who were successively in charge of the task of arranging my appointments and visits, I must express here my special gratitude. Finally, it is my duty and pleasure to name my counterpart, Mr. Issam S. El-Khairy, former Secretary-General of the Jordan Research Council, in whose able hands the future National Documentation Centre will become the National Focal Point of Development for a modern, up-to-date and efficient Jordanian National Information System.

I. BASIC DATA

GEOGRAPHICAL BACKGROUND

13. The "East Bank" of Jordan - to which all figures in this report refer - covers an area of 91,110 km^2 (according to UNDP Country Programme for Jordan, January 1977- December 1981, page 2) or 88,800 km^2 (according to the documents published by the Ministry of Culture and Information: e.g. Land and People, 1974, foreword).(1) The largest portion of this territory is a desert (about 69,500 km^2) or a steppe (about 10,000 km^2), leaving an area of some 9,300 km^2 which is really populated.

HISTORICAL BACKGROUND

14. The Dead Sea region was the cradle of "civilization" as we conceive it, namely of permanent settlements in the form of villages and, later on, towns. Jericho is probably the most ancient "town" with walls, but Beida, about 12 km North of Petra, in the Ma'an governorate, is its contemporary. Pottery, another sign of "civilization", was probably invented somewhere in the southern part of Syria, near the present Jordan-Syria frontier, but it is quite possible that new discoveries prove the existence of this birthplace in the present territory of Jordan. The East Bank is still an almost virgin mine for the archaeologist,

(1) Jordan: Land of Opportunity, published by the Ministry of National Economy (now of Industry and Trade) op. cit., page 19, gives still another estimate: 88,595 km^2. I have not been able to discover the reasons for these discrepancies.

including the now desertic regions, which in all probability conceal in their sands unknown treasures of a remote past.

15. Wadi Araba, West of Petra, was one of the earliest regions exploited by man for mining and metallurgy: this fact would favour the creation of a technological museum somewhere in this district (governorate of Ma'an).

16. Ammonites, Nabataean, Roman, Byzantine, Arabs, Crusaders - all the various conquerors of this country left important traces of their history, which make Jordan a fascinating place for museological ventures.

17. Bedouins were more or less the sole inhabitants of Jordan ("East Bank") until the Circassians came from the Caucasus in the late 19th century. Their culture is most interesting; it is however quickly disappearing, but it might not be too late to preserve, through adequate methods (cultural archives, oral history, etc.), all which is still available. I will return to this point later in this report (see Chapter 27).

18. The Ottomans ruled the country for four centuries (1516/1517-1918). They left relatively few traces of their domination in Jordan, except the narrow gauge railroad which is still (partly destroyed) the only railway in the country. But the archives in Constantinople (or Ankara) still contain materials pertaining to the history of Jordan, which are now microfilmed by the "Documentation Centre" at the University of Jordan.

19. From 1914 to 1946 - and partly up to 1957 - the history of Jordan is closely related to that of England, and many documents concerning that period are at the Public Records Office in London, in the British Museum, etc. Here again, the "Documentation Centre" at the University of Jordan is conducting a microfilming operation.

20. When Emir Abdullah came to Amman, on 2 March 1921, to establish the Emirate of Transjordan, he found there a small village. An independent government was proclaimed on 25 May 1923. British engineers made, during the 1920's and 30's, the first surveying work (Walpole), the first studies on water and geology (Ionides). Education progressed slowly; a secondary school was opened in Salt (May 1923). Apart from the records from land surveys and the Development Division of the Lands and Survey Department, on water and mineral resources, and the beginnings of a small library which is now part of the Department of Antiquities, "documentation" was non-existent in Transjordan. It was, however, much more developed in Palestine, under the British Mandate.

21. The Hashemite Kingdom of Jordan was officially proclaimed on 25 May 1946. This period was marked, from our point of view, first by the attribution of a Unesco fellowship enabling a Jordanian to study library science in England (April 1956-1957) and the creation, with Unesco's assistance, of the first public library in Jordan (Irbid, 1957). In 1958, the Libraries Division was established at the Ministry of Education. In 1952 and 1955, two libraries were founded in institutions which, later on, became Teachers' Training Institutes.

22. During the period 1958-1966 the economic development of the country was impressive. Education made good progress, too. The University of Jordan was established in 1962, and its library developed quite rapidly. Five other public libraries were created in the East Bank (Amman, Karak, Ma'an, Salt and Zarqa) - and five in the West Bank. The Educational Documentation Centre was established in 1964 at the Ministry of Education, with Unesco's help, and a library with documentation activities regrouped various previous collections when the Natural Resources Authority was founded, in 1966. In December 1963, the Jordan Library Association began its valiant efforts to promote the library profession and foster the idea of modern library and documentation organization.

23. In the most recent period library and information services have not occupied a high place in the national priorities. Research and development (R&D) progressed slowly: a Jordan Research Council, established in 1964, but which obtained only in 1969 a very small budget for supporting research (2,500 JD - Jordan dinars, about 3 dollars - gradually augmented to 6,500 JD in 1975-1976), made some good beginnings, and was then suddenly suppressed in 1976, without being replaced. A Royal Scientific Society was founded, as a private (but State supported) institution in 1970; its library at first grew quickly, and then more or less slackened.

POPULATION, HUMAN RESOURCES

24. Jordan's population is fairly homogeneous. Tribal conflicts, which played an important rôle in the past, are reduced to a minimum and the last remnants of tribalism were legally abolished on 16 June 1976 when the new civil code came into effect and the Tribal Courts Law was abolished. Religious tolerance is remarkable. The population is young; according to the projections for 1976, for the two banks, based on the Analysis of Population Statistics of Jordan - 1966 (Statistical Guide to Jordan, 1973, page 17), the population 0-14 years accounts for 48.3%(1).

Population growth

25. In 1955, the IBRD mission estimated the rate of natural increase at some 3% (op. cit., pages 48-50). Recently, the official publications accept a rate of 3.2%. It is a high rate - and it is bound to increase, or at least not diminish, with the improvement of health services. According to projections which served as a basis for the study of Dr. Akram M. Stetieh and Mohammed A. Smadi, Wheat in Jordan: demand and supply; estimations and projections (Royal Scientific Society, Economic Research Depart., July 1974, p. 49), the population of the East Bank would have been 1,944,000 at the end of 1975, and will be 2,044,000 at the end of 1976, 2,334,000 in 1981 and 2,637,000 in 1985.

Regional distribution

26. This population is very unequally distributed. Greater Amman (including Zarqa) is about 1,000,000, that is something like one-half of the total East Bank population, and is growing much faster than the rest of the Kingdom. In the absence of a real policy for regional planning, this situation is likely to continue, and even to be aggravated in the near future. Besides, it seems that the population of the Amman governorate tended recently to comprise an even larger proportion of younger people (between 15 and 30).

27. In the absence of a census since 1961, it is difficult to evaluate the regional trends of population growth, as the figures given for recent years are estimates. However, I give in Table 1, according to St. Ybk, 1974, the population by governorates in 1961 and the corresponding estimates for the population at the end of 1974:

---

(1) However, the UNDP Programme 1977-1981 gives (p.2) "slightly more than half of the population" for 0-14 years.

TABLE 1

Growth of population for the East Bank Governorates, 1961-1974

Governorates	1961	1974	Index number	(1961 = 100) % urban pop.
Amman	433,618	1,065,000	246	83.0
Balqa (Salt)	79,057	122,000	154	20.5
Irbid	273,976	539,000	197	23.7
Karak	67,211	98,000	146	11.1
Ma'an	46,914	66,000	141	33.2
Total East Bank	900,776	1,890,000	210	
% Amman	48	56		

It is evident, from these figures, that the new population has been absorbed primarily by the Amman governorate, and in the second place by the Irbid governorate, and that the South still lags behind. The predominantly rural region of Balqa has not progressed much more than the South.

Towns, villages, nomads

28. Jordan (East Bank) has very few towns, in the "Western" sense. Indeed, there is perhaps only one: Amman, with its satellite, Zarqa, and its numerous small "suburbs". Urban life here is recent. In 1869, there was no village East of Salt - so that practically, the whole of Jordan (East Bank) was the domain of nomads, except for a small strip of land 15 km wide along the Jordan River (or the Dead Sea). Settlements were established at Madaba in 1875-1880 and Amman in 1878.(1) For some cities, estimates of growth are conveniently available. Karak was 3,000 in 1922, 3,998 in 1948, 5,534 in 1952, 7,422 in 1961, about 9,000 in 1968 (Gubser, p. 29) and some 10,000 in 1973 (Statistical Guide to Jordan, 1973, p. 19). For Amman, Table 2 gives the estimates which I found:

TABLE 2

Population of Amman (estimates) - 1932-1976

Years	Population
1932	20,000
1935	15,000
1946	30,000
1947	45,000
1948	60,000
1952	108,304
1960	200,000
1961	246,275
1966 (end of year)	325,000
1967	338,000
1971 (d°)	520 720
1973	700,000
1976	750,000 (?)

Sources: for 1932, 1947, 1948, 1960, 1966, Goichon, II, 14-15; 1935, idem, II, 104 (according to the estimate of a local industrialist who came to

(1) See Raphael Patai, The Kingdom of Jordan (Princeton, New Jersey, Princeton University Press, 1958), p.32.

11

Amman at that date); 1952, Census of Housing, 1953 (Patai, p. 215); 1971, Stat. Guide to Jordan, p. 19; 1976, current "guesses" from the majority of persons I met; 1973, Summary statement on national science and technology policy in Jordan: unpublished document prepared for CASTARAB. 1961, Census of population (V. Lorenz, Physical planning in Jordan, I, Ministry of Interior for Municipalities and Rural Affairs, April, 1968, p. 44); 1967, same document, p. 42.

From the library point of view, it must be noticed that, when the Amman Municipal Public Library was established, in 1960, it had to serve a population which was less than one-third the present one. As its size has not been increased, it is not at all surprising to find it extremely crowded.

29. Table 3 gives some estimates for other provincial towns, for 1952, 1965 and 1972 or 1973, with the projections for 1971 and 1981 made by Lorenz in 1967.

TABLE 3

Growth of provincial towns, Jordan East Bank
1952-1973

Towns	1952	1965	1972-1973	Lorenz projections: for 1971	for 1981
Governorate of Amman:					
Madaba	8,545	13,646	22,600	18,000	24,000
Wadi-es-Sir	2,000(1)	4,455(1)	-	-	-
Zarqa	32,000(2)	107,000(2)	214,000	160,000	228,000
Governorate of Irbid:					
Irbid	23,157	45,000(3)	113,000	66,000	86,000
Ajlun	2,518	5,885	4,844	-	-
Jerash	2,614	4,694	4,589	6,000	7,000
Mafraq	6,000(3)	10,000(3)	15,500	14,000	18,000
Ramtha	10,000(3)	12,000(3)	19,000	18,000	24,000
Governorate of Balqa:					
Salt	15,478	18,000(3)	24,000(4)	27,000	35,000
Governorate of Karak:					
Tafila	8,588	5,000(3)	8,200	8,000	10,000
Governorate of Ma'an:					
Ma'an	4,509	6,000(3)	9,500	9,000	12,000

Notes: (1) Estimate given by Patai, p. 21. At that date small Circassian settlement. The figure in the column for 1965 is in fact the population found in the 1961 Census. This town is now a suburb of Amman, and recently founded a public library (1969).

(2) The figure for 1952 is taken from the graph in Lorenz, op. cit., p. 37; that in the column for 1965 is in fact the estimate for 1963, Goichon, II, 15. Zarqa is the industrial satellite of Amman, and included in what is called here the "Greater Amman".

(3) Figures from the Census of H using (1952) and the Census of Population (1961), which I have not seen; taken from the graph in Lorenz mentioned note 2.

(4) The figures for Salt are dubious. Goichon, II, 104, from the testimony of the same industrialist mentioned in the Sources for Table 2, who came from Salt to Amman in 1935, gives at that date a population of 35,000 (?). On the other hand, in 1975 the magazine Jordan, published by the Ministry of Tourism and Antiquities, 6 (4), p. 2, gave a figure of 30,000 for 1975.

Sources: For 1952 (Census of Housing), Patai, p. 215. For 1965, Statistical Guide to Jordan, No. 3, Dept. of Statistics, p. 12. For 1972-1973, Statistical Guide to Jordan, No. 5, 1973, p. 19: the figures are estimates for 1973, except those for Ajlun and Jerash, for 31.12.1972. Lorenz projections: his report cited in the Sources for Table 2, graph facing p. 36.

30. I made no attempt to investigate population trends in the villages. From all that I read and heard, rural development is, in reality, just beginning. From the library point of view, the rural population has been almost left aside, except for a few attempts to provide rural schools with, at least, a few booklets and the obligatory subscription by the local teacher to the magazine of the Ministry of Education. This is an area which seems sadly neglected.

31. Nomadism, which was still a prominent feature of the East Bank in the 1930's and 1940's, is rapidly declining - and will probably disappear almost completely during the next two or three decades. This process was already well advanced twenty years ago (see Patai, chapter 9, p. 156-198; Goichon, II, 74-107). There remain a few true nomad tribes in or near the desert, and some semi-nomads or semi-sedentary tribes, for instance in the confines of the Karak plateau (Gubser, p. 51). The main problem they raise from the point of view of this report is that of recording their traditions before it is too late (see above, para. 17 and below, chapter 27).

Manpower (Labour force)

32. Data concerning manpower and labour force in Jordan is scanty, and not always reliable, particularly concerning the participation of women, agricultural manpower and the construction sector (see James A. Socknat, Introduction to reports on manpower in Jordan, National Planning Council, Manpower Planning Section, July 1972, p. 2; for the history and evaluation of previous data, Salem O. Ghawi, The manpower situation in Jordan, paper prepared for seminar on Manpower in Jordan, April 1972, p. 1-3).

33. A new survey of the labour force was made in 1975, but up to the present only the computer print-outs are available, and an analysis has not yet been made. Some preliminary results were released in the newspapers on 16 May 1976, and Mr. Ghawi was kind enough to permit me to use some unpublished figures on the agricultural labour force.

34. Some important lacunae must be pointed out concerning the existing data. They exclude the armed forces and security personnel. Moreover, workers "without a place of business" are not normally included, except in the 1961 Census figures; temporary workers are under-represented; private service domestics are excluded; finally, small establishments (under 5 persons) are generally either uncovered or treated by estimates. Figures concerning pay are unreliable (see Socknat, Managerial manpower in the East Bank of Jordan, 1970, July 1972, p. 35). It is necessary to use what is available and to try to draw from this material estimates concerning the potential users of information systems in the country - what Mr. J. Stephen Parker in his report (Proposals for library development in the Hashemite Kingdom of Jordan... 12 November 1975, London: Library Development Consultants, /1975/, p.6) calls the "Estimated Potential User Population (EPUP)".

35. The total labour force in the East Bank has been estimated at 340,000 for 1970 (Socknat, Introduction..., p.3). For 1973, Jordan: land of opportunity (op. cit., p.24) gave a figure of 370,000 - probably by estimate based on the 1970 figure.

36. In 1961, for both Banks, the percentage of the "labour force" (at that date 389,978 persons) in agriculture according to the Census, was slightly more than 35%. This proportion is still frequently cited in official publications as valid for the East Bank now: for example, in the Ministry of Culture and Information pamphlet on Agriculture (1974, p.7)(1); in that on Economic development (1974, p.3) we read that "Agriculture... engages about one-third of the economically active population", and in Jordan: land of opportunity (1973, p.24) that "approximately 45% of the total work force are found in agriculture".

37. If we look at the statistics of registered marriages according to the profession of the groom, which concerns mainly the male population between 20 and 29, we obtain the figures of Table 4. The proportion of "farmers, fishermen, hunters, etc." is declining, and will probably be no more than 13% in 1975. As "fishermen and hunters" are negligible, this gives a fair idea of the proportion of younger farmers.

TABLE 4

Registered marriages by occupation of groom
1970-1974 (East Bank only)

Year	1970	1972	1973	1974
% Farmers, etc.	14.3	14.5	13.7	13.4
% Armed forces	24.3	26.5	24.6	24.8

Source: Percentages calculated from the figures given in St. Ybk for 1970-1974.

Incidentally, this table gives some idea - other statistics being unavailable - of the percentage of younger males serving in the Royal Army.

38. The most accurate data available at present on agricultural manpower are contained in Table 5.

TABLE 5

Agricultural Manpower, 1975

Category	Permanent(1) Manpower	Temporary(2) Manpower	Casual(3) Manpower	Total Manpower
Wage-earners				
Male	38,085	3,345	4,581	46,011
Female	25,236	4,021	3,482	32,739
Total	63,321	7,366	8,063	78,750
Non-Wage-Earners				
Male	8,872	6,850	22,295	38,017
Female	1,070	1,157	6,048	8,275
Total	9,942	8,007	28,343	46,292
Together				
Male	46,957	10,195	26,876	84,028
Female	26,306	5,178	9,530	41,014
Total	73,263	15,373	36,406	125,042

(1) This publication is an abridged version of Wael Kanaan & Yousef Attieh, Jordan: agricultural development (1974). P.1, these authors wrote: "More than 40% of the labour force is employed in agriculture"...

Notes: (1) Occupied in agriculture more than for 2/3 of their working time.
(2) Occupied in agriculture from 1/3 to 2/3 of their working time.
(3) Occupied in agriculture less than 1/3 of their working time.

Source: Unpublished data from the Agricultural Manpower Survey, 1975, communicated by Mr. Ghawi.

39. The non-farm manpower employed in "establishments" with the omissions noticed in para. 34 above, and certainly underestimating rather considerably the construction manpower, was estimated in 1970 as 104,289 (Ghawi, The Manpower situation..., p.12). The figures released by the Dept. of Statistics on 16 May 1976 relating to 1975, give a total of 128,232 persons. Still, it concerns the civil manpower only, and mainly that employed in "establishments", and - as its predecessor - does not include all the labour force employed in the construction industry: an important gap, owing to the present construction "boom" in the country.

40. It is now possible to estimate roughly the distribution of the population aged 15 and more in 1975. Using the 50% percentage suggested by UNDP (see page 7 above, footnote), we find that this population could have represented some 945,000 persons; from the Statistical Educational Yearbook 1974-1975 (p. 10-11), we have estimates of the population aged 3-23 and the various enrolment ratios by "cycle": 3-5, 6-11, 15-17 and 18-23+. Table 6 summarizes the results.

TABLE 6

Crude estimates on the manpower situation, 1975

Age	Population	Students	Available as potential labour force
0-2	241,614	-	-
3-5	214,994	15,107	-
6-11	349,002	336,866	12,136
12-14	139,390	111,374	28,016
15-17	122,284	56,189	66,095
18-23	188,980	20,254	168,726
24-64	569,476	-	569,476
65+	64,260	-	-
Total	1,890,000	539,790	844,449
Total agricultural manpower (in farms)			125,042
Other civil manpower			128,232
Total civil manpower (according to surveys)			253,274
Total civil manpower (according to surveys) as a percentage of the available population representing the potential labour force			±30%

Where are the other 70%? In the army and the police, in the unregistered manpower of the construction sector (mainly small firms and daily workers), in quarrying as daily workers, as "newsvendors, door-to-door salesmen and other unlicensed workers" (Socknat, Wholesale and retail trade, hotels and restaurants manpower... 1970, August 1973, p.3), as "shoeshine boys, peddlers, street vendors, etc. and private service domestics" (Socknat, Community, social and personal services manpower in the East Bank of Jordan, February, 1973, p.9), as housewives, and, of course, as unemployed people. It is impossible to attempt even a guess on the distribution of this mass among its various categories - and, quite evidently, the reader must take all the figures of Table 6, in spite of their apparent precision, as allowing a possible margin of error of perhaps 20%, with the exception of those for the student population, probably accurate within a margin of a few percent.

41. Direct comparison of the geographical distribution of manpower in 1970 with that given by the Employment Survey of April 1975 is impossible, so far as the actual place of work of the employees is concerned, as this Survey considers each "establishment" according to headquarters location, which means that all government civil servants, wherever they work, are considered as employed in Amman.

42. Nevertheless, it may be useful to give the crude figures 1970-1975, which apparently show a continuing trend of concentration in Amman.

TABLE 7

Estimates on the geographic concentration of non-farm employment in establishments engaging 5 or more workers according to the location of their headquarters, 1970-1975

Headquarters location	Workers 1970		Workers 1975	
	Number	%	Number	%
Amman	54,330	92.1	80,551	95.1
Zarqa			2,591	
Irbid	2,121	3.6	2,079	2.4
Balqa (Salt)	968	1.6	550	0.6
Karak	354	0.6	319	0.4
Ma'an	1,225	2.1	127	1.6
Aqaba			1,269	
Total	58,998	100.0	87,486	100.0

Sources: 1970, Socknat, Introduction..., p.9; 1975, Employment Survey... No.20, p.III.

43. Some implications of this discussion for the library and information systems in Jordan must be summarized. The country is changing, with astonishing rapidity, from a predominantly rural and rather strongly tribal society to an urbanized one, but with almost all industry, services and administration concentrated in one big city. Agriculture is losing ground, especially in so far as its younger population is concerned. Large reserves of manpower, either unemployed or under-employed, still exist - particularly within the female population. The armed forces draw from the younger male population almost one-fourth of the potential labour force aged 20-29. Its importance in the global economic and social development has been underlined by His Royal Majesty King Hussein himself. "Big" industry is growing, probably at the expense of the traditional small enterprises and individual craftsmen or craftswomen. Facing such a situation, it would be most tempting to concentrate all efforts for establishing a National Information System towards reaching a few targets, to which a high rank of priority would be assigned: from the regional point of view, first of all Amman (or Greater Amman), and secondly Irbid and Aqaba; from the sectorial point of view, first of all the Army and secondly the "big" enterprises - some 100 or at most 200 industrial firms. However, I think that such a policy would be erroneous, at least in the long term, and that a more balanced development must be sought which would aim at trying to help the agricultural sector and the traditional crafts, as well as the development of regional public and school libraries serving the smaller towns and - most difficult but imperative task! - the villages.

Literacy and level of education

44. It is commonly asserted that the present population of Jordan (East Bank) is about 40% illiterate. As this is an important factor for determining the Estimated Potential User Population (EPUP) (see para.34 above), it is appropriate to inquire more in detail into this subject.

45. Firstly, it is good - as recent statistics from Jordan Dept. of Statistics and National Planning Council are doing - to distinguish illiteracy properly speaking, generally marked in this country by the characteristic "no formal education", and that part of the population which is "functionally illiterate", generally considered as equivalent to those who have not completed elementary education. The only comprehensive survey of literacy in Jordan is that given by the 1961 Census. At that time, illiteracy properly speaking was 67.6 for the two Banks together.

46. Two more recent surveys show that the situation is better now. The Household survey of February 1971 gave rates of illiteracy by age groups, from 12 to 99. The best percentage was 15% (both sexes) in the 15-19 group, and the second best 22.4% in the 12-14 group. Then it went up from 24% (20-24 group) to 84.2% (65-99 group). Females were approaching the males percentage only in the 12-14 group: 24.1% compared with 20.8%. In all other groups, the difference was much greater, and in the 65-99 group illiteracy was almost complete for women: 98.8%. Unfortunately there is no geographical distribution available (see Table 12, p.21, of Ghawi, Manpower Situation, April 1972). The average rates were 26% for males and 53.7% for women, 40% for both. On the other hand, the survey on fertility of population in 1972 gave for married persons 15 and over a rate of 41% for both sexes, 24.1% males and 57.6% females: slightly better for men, but worse for women; the difference from the 1971 Household survey is almost certainly due to the lower proportion of young people in the second survey (see the pamphlet Education, Ministry of Culture and Information, 1974, p.18).

47. The Establishment Survey, 1970, provides more details concerning non-farm manpower employed in establishments including 5 or more workers (25 or more for the wholesale and retail trade sector), and this survey contains also data on the "functionally illiterate". The detailed results are contained in Tables 8 and 9, p.16-18 of the Ghawi report mentioned in para.46 above; besides, one can find the percentages of illiterate and functionally illiterate, by sex, in each of the sectorial reports prepared by the Manpower Planning Section of the National Planning Council in 1972-1973, before and after the Seminar "Manpower in Jordan". Table 8 below summarizes these data.

48. On the whole, the situation does appear better for this category of the population than for Jordanians as a whole, and the fact that there is, in this part of the manpower, most important for the economic development of the country, only some 16% of illiteracy properly speaking, is encouraging. This has for libraries and information systems in Jordan an important implication: it is important to develop the services intended for helping these social strata - and, more particularly, the managers. At present in Jordan, only the banking sector seems to have been able to organize services on a satisfactory level.

49. As for the rural population, there are only, so far as I know, two studies which throw some light on this matter. The first is a report by Maurice B. Issi, Socio-economic aspects of the Wadi Dhaleil area of Jordan, Royal Scientific Society, Economic Research Dept., 1975. He found, in the sample of farmers investigated, 38% of illiterates and 21% of persons having an "informal education", (p.14, table 7). It must be underlined that this survey concerned only the farmer himself, not his wife or his children. The second document is another

TABLE 8

Illiteracy and functional illiteracy manpower in establishments employing 5 or more people (25 or more in the wholesale and retail trade sector), 1970: % of total manpower

Category	Non-farm Agriculture	Mining	Electricity	Manufactures			Transport	Trade
				M	F	T		
Illiterate	23.6	45.8	9.0	17.8	22.8	18.3	12.8	16.1
Functionally illiterate	17.7	19.7	17.5	24.9	25.0	24.9	17.8	19.1
Illiterate & functionally illiterate	41.3	65.5	26.5	42.7	47.8	43.2	30.6	35.2

Category	Finance	Community services			All managers	Total Manpower		
		M	F	T		M	F	T
Illiterate	6.2	14.7	8.3	13.3	5.5	17.3	9.9	16.2
Functionally illiterate	7.5	9.9	1.8	8.1	11.9	15.5	4.8	13.9
Illiterate & functionally illiterate	13.7	24.6	10.1	21.4	17.4	32.8	14.7	30.1

Notes: I have taken the percentages as given in the documents, despite the fact that they are calculated on the total manpower, including a variable % of "unknown" - which possibly are mainly in the categories of illiterate and functionally illiterate (for instance 5% for the Community Services). But for the Total Manpower, I have deducted the "unknown" and calculated the % on the total of those who indicated their level of education.

report of the Economic Research Department of the Royal Scientific Society, Agro-economic aspects of tenancy in the East Jordan valley, by Hisham Sharab (R.S.S., 1975). Table II-6 (p.25) gives the "Distribution of tenants in the East Jordan valley by level of education, 1974". The percentage of illiterates is here much higher: 66.5%, with a minimum of 64.4 in the Northern Ghor and a maximum of 71.8 in the Southern Ghor. There is no indication concerning the "functionally illiterates", as the other categories are "Six or less years in school" and then 7-9 years and 10-12 years in school.

50. Some idea of the trend in alphabetization can be gained from the evolution of the percentage of "illiterate" persons given in the statistics on registered marriages, to which I have already had recourse (para.37). The results are given in Table 9.

TABLE 9

Percentages of illiterates: registered marriages, East Bank, 1966-1974

% Illiterate	1966	1967	1968	1969	1970	1971	1972	1973	1974
Groom	15.6	15.9	12.2	12.4	10.5	11.2	10.6	8.9	8.1
Bride	53.8	55.7	46.6	44.9	40.9	41.5	38.9	29.2	29.7

Source: Percentages calculated by me on figures contained in St. Ybk, 1970-1974.

The progress is rather impressive. Still, it seems to me that much remains to be done, especially in eliminating illiteracy among women - keeping in mind that the majority of brides are in the age group 15-24.

51. What are the implications for a Jordanian National Information System? A NATIS document, just published when I flew to Amman, gives some indications on the rôle of information systems in dealing with the problem of illiteracy (B. Tell Design and planning of national information systems (NATIS): a paper for government planners. Paris, Unesco, 1976, COM.76/WS/6, p. 14-15). I refer the interested reader to these pages, adding only that public libraries, especially, can play a very important part in the eradication of illiteracy and - perhaps even more crucially - can help even semi-literate people to pursue reading which is of interest (practical, social, cultural) to them and avoid the not infrequent bad result of literacy campaigns not supported by an adequate network of public libraries - letting people fall back into illiteracy...

52. There are, in the documents of the Manpower Survey and in the Employment Survey, a rich collection of tables indicating levels of education, desirable and achieved, by type of establishments, by professional status, etc. to which the reader is referred. However, one point of special interest must be mentioned, that of the "highly qualified manpower" - engineers, doctors, lawyers, etc., and university graduates. The Jordan Times for 16 May 1976, included a news brief, "9.3% of labour force university educated". Reading the text, one can find that it referred in fact to 11,801 persons employed in non-farm (probably civil) establishments having "completed... their university studies". In the Employment Survey for April 1975 (latest issue published), one can find a detailed table (Table 15) from which it could be inferred that there were at that date 10,098 graduates employed in establishments engaging 5 persons or more, again in non-farm civil activities. However, there are reasons for believing these statistics incomplete.

53. A roster of all Jordanian graduates, being prepared on cards at the Jordan Research Council for input into a computerized data bank was interrupted first for lack of funds and later as a consequence of the suppression of J.R.C. I was told that this roster would have included some 30,000 names. It is recommended that the future National Documentation Centre consider as one of its tasks the completion of the former J.R.C. roster and its exploitation for information planning.

Migrations, brain drain

54. It was mentioned by almost every person I met that there was a considerable of high level manpower - or indeed of qualified manpower in the country, towards the Gulf States and Saudi Arabia as well as to countries outside the Arab . No exact statistics are available on this phenomenon, which existed already in 1970, but was then labeled by Dr. Tayseer A. Jaber, at that time Director of the Economic Research Department at the Central Bank of Jordan, as "more of an overflow rather than a brain drain" (Education as an investment in Jordan, paper prepared for seminar on "Manpower in Jordan", April 1972, p.3). Dr. Jaber who went so far as to suggest that "the Government could enter into agreements with other governments to organize manpower outflow from Jordan" (p.4), recommended a kind of "numerus clausus" at the university and even secondary level, and the general outlook of his paper was that there was an "Over-investment in Education" in Jordan (p.3 - presented, it is true, as a "hypothesis", but, apparently, as one favoured by the author of the report). According to the Jaber report, there was in 1972 an estimated unemployment of university graduates of about 9%, and "some signs of disguised unemployment" (p.3). From what I have been able to see, there is perhaps, more serious even, some under-utilization of the skills of many specialists, who are not properly placed in positions where they could best use their knowledge and capacity for the betterment of life conditions for their fellow-citizens. But this subject falls outside the scope of the present report. So far as libraries and information services generally are concerned, there is, most certainly, a lack of qualified manpower in the country, and in fact a number of the best qualified librarians in the country have left for the Gulf States and other countries; their return would be most desirable.

NATURAL RESOURCES, PRODUCTION

55. Jordan is by no means a destitute country. In Roman times, it was one of the granaries of the Empire. Its agriculture has potentials which have not all been exploited. Its mineral resources are until now not fully explored, but what is already known is sufficient for establishing several industries based on existing, proved, and exploitable resources. Its environment with its favourable climatic features, its natural scenery, and its archaeological treasures, is of a great richness. I will give only a few figures, bibliographical notes and comments, to help future planners of information services in Jordan judge where they could concentrate their efforts.

Water

56. Water resources were one of the first domains where scientific research was conducted in Jordan. The history and description of water research up to 1969 is to be found in No.1 (which was never followed by No.2) of the Quarterly Journal of the Natural Resources Authority, June 1969, p. 46-67. The bibliography of the subject has been published by the library staff of N.R.A., in the series of bibliographies which they have issued (No.3, Dec., 1969; 5, Dec., 1970-1971; 6, Dec., 1972; 7, Dec., 1973; 8, Dec., 1974; 9, Dec., 1975). The subject, thus, has been practically covered on a yearly basis. However, a certain delay in

recording references to some reports seems to prove that the N.R.A. library has not always been able to obtain certain reports immediately, or that it did not have the necessary resources to process them quickly.

Agriculture

57. Agriculture seems not to have been assigned the same priority as industrial development in Jordan. Attention is called to the good Bibliography of published or reported work in the field of agriculture and allied sciences in Jordan, by Dr. Subhi Qasem and (Miss) Salma Tukan, (Jordan Research Council, No.5, May 1974, p. 41-42). Some interesting reports on socio-economic conditions of agriculture have been published, coming from various sources (the Italian firm Bonifica, FAO, the American University of Beirut, etc.: see Qasem & Tukan, p. 35-44) and, recently, from the Economic Research Dept. of the Royal Scientific Society: to the references already given here (paras.25, 49 above) must be added the report by Dr. Jared E. Hezleton, The Impact of the East Ghor canal project on land consolidation, distribution, and tenure (R.S.S., Jordan Economic Studies, Dec. 1974) which is one of the few giving insight to the problem of tenure.

58. Agricultural information and documentation is rather widely dispersed. To the Faculty of Agriculture at the University of Jordan, whose Dean is Dr. Qasem, senior author of the bibliography cited above, and which is trying to collect in its library all materials concerning Jordanian agriculture, must be added the Department of Agricultural Research and Extension of the Ministry of Agriculture and the small library of the Ministry itself, the Dept. of Statistics, the Department of Lands & Surveys, the Royal Scientific Society, the Agricultural Credit Corporation, the Jordan Co-operative Organization, the Jordan Valley Commission, etc.

59. Nevertheless, reliable, accurate and complete information on the agricultural situation is not always easy to find. As an exercise, I tried to get precise figures on the surface of arable and cultivated (irrigated, by gravity, by sprinkling, by wells; non-irrigated) land, the areas of principal cultures and yields per dunum (1 dunum = 1,000 m^2) etc., etc.: in short, a global picture of the agricultural situation and potentialities. This apparently simple job proved to be very difficult. At first glance, the booklet on Agriculture published in 1974 by the Ministry of Culture and Information, which I quickly obtained at the Ministry (already referred to above, para.36, and footnote), seemed to provide the essential information. But I discovered after a few checkings that it was not always reliable.

60. The general situation of agriculture in the country can be followed from 1955 to 1975 using as a point of departure Chapter 2 of the IBRD report (p.72-177) which summarizes many documents up to 1955 (including the Agricultural census of 1953) and presents the views of a team of competent experts, and then the two Agricultural Censuses of 1965 and 1975; unfortunately the first one is out of print, and the second one has been only partially published. In addition, there is the valuable Symposium on agricultural development in Jordan: Draft report and recommendations, April 1974, mimeographed document (which seems to be quite difficult to find in Amman, and formed apparently the basis on which the part concerning agriculture in the Five Year Plan 1976-1980 has been designed). Since 1970 (after a first attempt in 1968-1969), the Dept. of Statistics has conducted periodic sample surveys, one on unirrigated areas, a second on the Ghor (irrigated areas) and a third on the areas irrigated by artesian wells. Data on land property are almost non-existent for the private sector and data on land tenure scarce.

61. All projects aiming at the creation of a public library service in the rural areas need to be studied against the background of available data for selection of regions where literacy levels and other sociological factors indicate the greatest possibility for success.

Mineral resources, mining, quarrying

62. Systematic prospection, mapping, etc., really began - under the impulse of Eng. Khairy, my present counterpart, in the 50's. Considering the great wealth in minerals contained in Jordanian soil, including phosphates, potash, sulphur, copper, manganese, bituminous shales, clays and glass sands, marble, cement rock, etc. - and probably oil and gas as well - this sector merits a high rank of priority in the National Information System for Jordan. The present library of the Natural Resources Authority, which is one of the richest of all specialized documentation centres in the country, suffers, in spite of the devotion of its staff, from overcrowding, serious shortage of funds, and understaffing. Its transfer to the new building which is to replace, around 1978, the 18 rented buildings in which the offices of NRA are at present dispersed (see 5 Year Plan, p. 686-687) will improve the situation, providing that sufficient space is allocated to the Library and Documentation Centre and that its budget and personnel be substantially increased.

Power supply, electricity

63. There is no coal in Jordan. Up to now, oil has been discovered, but in insufficient quantity to be exploited, although substantial reserves may in the future be found to exist. At present, the Jordanian market is covered by the production of the Jordan Petroleum Refinery. JPR has only a small library, with some 3,200 volumes, 70 current periodicals and 2 assistants (untrained). This facility, which seems rather inadequate, should probably be expanded. In the absence of an oil industry other than refining, this sector does not require extensive expansion for the moment, from the information point of view.

64. Electricity is produced mainly, but not exclusively, by the Jordan Electricity Authority, established in 1967. In 1974, it established a statistical section for estimating present and future demands and preparing forecasts (see the 8th Annual Report, p. 20-21). However, it apparently does not possess yet a library or documentation unit. The average annual rate of growth was about 13% for the power generated and 12% for the number of subscribers (5 Year Plan, p.387) since 1972. According to a survey carried out by the Ministry of Interior (date unknown, probably 1975), 713 villages (or small towns) out of a total of 794, had no electricity at all. According to details provided in Jordan Development Conference, 31/5-4/6/1976, Document JDC/76/4, p.34, even in 1981, if the Plan is implemented at 100%, there will still be either 634 or 513 villages and small towns without electricity, that is between 77 and almost 80% of the total number. Extensive rural library development will probably remain at a low level during the next few years since obviously, people will first seek electricity (and also water, because 422 villages and small towns, i.e. 53% are without water distribution to houses: see same document, p.31) before claiming library service.

65. The Royal Scientific Society has a project for establishing an "Energy Application Research Centre", for which 30,000 JD were spent in 1975 and 470,000 JD are to be spent during the 5 Year Plan, for the utilization of solar energy, establishing an experimental station on the Aqaba coast to desalinize sea brine (in collaboration with the FRG firm Dornier: see RSS Five Year Plan, 1976-1980, p.7, and NPC Five Year Plan, p.765-767). The reader is referred to the Unesco document SC-76/CASTARAB/3, Science and technology in the development of the Arab States, Chapter II, p.38-39 in which it is indicated that "substantial

R/D efforts, in highly industrialized as well as in developing countries, are necessary to improve the practical use of available solar energy technologies and to develop and adapt new ones", so that this field can be considered one in which a reasonable amount of information effort has to be provided in Jordan.

66. Nuclear energy applications have been so far restricted in Jordan. However, the Jordan Research Council has received, from the beginning I think, the documents of the Vienna International Agency. As an atomic accelerator building, with a four-million watts accelerator, is to be completed at the Jordan University in 1977, it is probably reasonable to envisage either to keeping and continuing this collection at the new National Documentation Centre or (and, probably, preferably) giving it to the Accelerator Laboratory at the J.U. Faculty of Science, as a nucleus for an information unit on all aspects of nuclear physics, chemistry, etc. to be located there.

Building materials and construction

67. There is an abundance of building material in Jordan. Excellent stone, very good marble, cement rocks, etc., do exist in many places. A cement industry was established (Jordan Cement Factories Co. Ltd.) in 1951, with an initial capacity of 200 t/day, increased in 1960 to 500 t/day, and 1,000 t/day in 1963; it is now 1,700 t/day, and insufficient, owing to the construction boom of the last two or three years.

68. Except for certain buildings (for instance, industrial buildings, or the Youth and Sport complex on University Road in Amman), the methods of construction are fairly traditional. Prefabricated elements, a fortiori entire prefabricated houses, are apparently exceptional and quite recent.

69. There is a good, if small, Building Material Research Center, which is now assigned to the Royal Scientific Society, but its personnel (8 people) is "on loan" from the Ministry of Public Works, and part of its testing equipment is still located there. It has been a regional centre within the "IDCAS Information Network" (IDCAS = Industrial Development Centre for Arab States) since 1972. This gives its director (the very competent and devoted Dr. Eng. Rawhy Al Sharif) an opportunity to participate, as an official delegate, in the meetings of the "Permanent Consultative Committee on Industrial Information & Documentation" of IDCAS, situated in Cairo but having its meetings in various places.

70. BTRC seems to me a promising element in the future network of research (and technical information) centres in Jordan. However, it suffers from lack of space, equipment and qualified personnel, as well as from what I would call a somewhat "isolated" position, internally as well as from the international contacts point of view. It could very profitably be much more closely linked with certain French research centres like the CSTB (Centre Scientifique et Technique du Bâtiment), the Laboratoire Central des Ponts et Chaussées, etc., despite the language difficulties. French experience in testing building materials and in prefabricated elements could be usefully applied to Jordanian conditions, and it would be a good programme for bilateral technical assistance. No doubt, the same remark could apply to other countries (Netherlands, Sweden, etc.).

71. The search for more economical and more efficient methods of construction, especially in building houses for the low income strata of the population, would seem to deserve a high priority, and efforts in this direction should be accompanied by a parallel development of documentation services in the field of building. Unfortunately, it does not appear that other services exist: I had no opportunity to visit the Housing Corporation, but from what I heard and read, it has no library or information facility. This gap might be filled in the future

information network in Jordan, perhaps by enlarging the functions of the BMRC to cover building methods and techniques.

Manufacturing industries

72. The Central Bank of Jordan compiles an "Industrial production index of principal industries", base year 1966. However, the usefulness of this global index is limited for detecting the structure or development of manufacturing industries, as it includes phosphates, cement, petroleum products and electricity which indeed, added together, constitute by far the largest part of the whole industrial sector. Separate indexes for the various components of the global index are given in the Central Bank 1971 report (for 1967-1971) but neither in the 1974 report nor in the Central Bank Monthly Statistical Bulletin. I would strongly recommend that the CBJ publish regularly these detailed indices on a monthly and yearly basis.

73. Very few "industries" properly speaking existed in Jordan (East Bank) before the 1960's. Two cigarette factories were founded in 1931; then followed the Jordan Vegetable Oil Factories Ltd. in 1953, the Tanning Co. in 1957, the Jordan Worsted Mills in 1962; a paper factory started production in 1968. The Jordan Iron and Steel Industry Co. Ltd., created in 1965 started production also in 1968: its two rolling mills have a capacity of 100,000 t and its expansion is projected.

74. Current projects include a salt refinery (capacity 8,000 t/year) and a ceramics industrial company; both are announced in the 5 Year Plan (p.313 and 311) as beginning production "in early 1976". A modern flour mill (capacity 150-200 t/day) is envisaged for 1978 (5 Year Plan, p.435-6); a Jordanian Textile Co. was established in 1974, to begin production at Zarqa in 1979 (5 Year Plan, p.348). The Jordan Fertilizer Industry Co. will have - on the Aqaba coast - around 1979 a sulphuric acid unit (3,200 t/day), a phosphoric acid unit (1,100 t/day) and a fertilizer unit (2,000 t/day); ammonia and sulphur will be imported and "most of the production will be exported" (5 Year Plan, p.343-344). A small pilot project for copper production is envisaged in the Wadi Araba zone (S.W.) to start in 1979 with a capacity of 3,000 t/year (5 Year Plan, p.369-370) and a study is being conducted on the possibilities of developing a petroleum derivatives industry (idem, p. 329).

75. According to the 5 Year Plan data, 184 new factories were licensed during the period 1973 to mid-1975, with a capital investment of some 25 M JD (p. 313). A panorama of the various Jordanian industries can be obtained using the publication of the Ministry of National Economy (now Ministry of Industry and Trade), Jordan: Land of opportunity (1973) and that of the Amman Chamber of Industry, Meet Jordan: your guide to business (1976). There are three aluminum companies, which produce, among others, very good door and window frames, two manufacturers of batteries, a polyvalent Industrial, Commercial and Agricultural Co. Ltd., two breweries (licenced by Amstel and Henninger), a Pepsi Cola factory, three iron founderies, 8 manufacturers of plastic articles, etc. The Arab Pharmaceuticals Manufacturing Co. Ltd., in Salt, repackages imported products.

76. The information and documentation services of all these firms are, as far as I could determine, quite limited. Most of them, if not all, rely on information supplied by parent foreign companies, experts and consultants, vendors of equipment, etc. The Arab Pharmaceuticals Manufacturing Co. has a small library, established in 1968, with one "assistant"; the Jordan Petroleum Refinery Co. has another (2 "assistants", 3,200 vol., 70 current periodicals). I asked the Production Manager of the Phosphate Plant at Al Hassa how he got the required information for his work: he said that the Phosphates Co. has some library

facilities, but that they rely mainly on the documentation available at the Natural Resources Authority in Amman.

77. There are in Jordan a large number of small industrial establishments: the Amman Chamber of Industry has, I was told by its Secretary, about 1,300 registered establishments. However, the great majority of them are of the small-scale and handicraft type. I will discuss in chapters 28 and 30 of the present report some possible solutions from the information system and policy point of view.

Paper and printing

78. As the paper and printing industries present a special interest from the point of view of the present report, I tried to obtain details on their situation in Jordan. As already indicated above (para.73), the Jordanian paper industry is very recent - in its 9th year of production, so far as the most important plant is concerned, that of the Jordan Paper and Cardboard Factories Co. Ltd. in Amman; there are also four or five factories for paper bags, one or two for napkins and one for envelopes. The present value of exports represents probably not much more than some 10% of that of imports.

79. The Chamber of Industry directory indicates 4 commercial printers, plus the Co-operative Printing Presses Workers' Society, which is one of the successful production co-operatives in the country, founded in 1959. But it does not include either the newspaper printing plants - one of which, at least: the Jordan Press Foundation, prints also other things - nor the printing plants belonging to the Government or to the Royal Scientific Society. Probably the best printing in the country is done at the printing press of the Army; printing facilities, at various levels of quality and efficiency, exist also at the Ministry of Education, at the Dept. of Statistics, at the Ministry of Agriculture (for the Extension Dept.).

80. The total number of employees indicated in the Manufacturing Manpower survey(1) (p.14) for "Printing, publishing and allied industries" was 518, in 66 establishments: 5 establishments for "Newspaper printing, publishing and allied industries" with 65 people, and 61 commercial presses with 453 people. For the newspaper industry, these figures include not only the personnel of their printing plants, but also the journalists, etc.; in this group, there was one firm with 41 people and 4 with 24 people in all (average: 6 persons). The new Manpower Survey, 1975, will give more up-to-date figures - but, it is at present available only in computer print-outs, not yet analysed. In any case, it is clear that printing in Jordan is a small business category up to the present.

81. The quality of printing is below average - at least for the major part of the production. There are numerous typographical errors. Colour printing, although improving recently, is still not up to international standards, and up to the present even government departments have this category of printing done in Beirut, Damascus or even in England. Highly qualified manpower is very scarce.

82. The Ministry of Education publishes quite a few textbooks, and relies almost entirely for this job on foreign printers (Beirut, Cairo, etc.). It has a small and obsolete Addressograph-Multigraph offset press.

83. There is, apparently, no printing plant in Jordan of the "small offset" type - with Solna or Heidelberg presses, Rotaprint, Gestetner, etc. Such a facility

(1) Source: James A. Socknat, Manufacturing manpower in the East Bank of Jordan, 1970. National Planning Council, August 1973, p.14.

would be very desirable: I would strongly recommend that it be established, preferably in connexion with a Jordan University Press, as soon as possible. It could also do reprints of older books and periodicals relating to Jordan which are at present very difficult to buy on the second-hand market. It could also be attached to the future National Documentation Centre or even exist as a separate government-aided company.

SERVICES

Communications

84. As communications systems are an essential infrastructure for information systems, I will devote some attention to the situation in Jordan in this field. It is characterized by an already developed roads network, developing airways and telecommunications networks, a narrow-gauge railway, a single congested port, and a postal service which needs improvement.

85. Roads were very few before World War II. The road situation as it existed in 1954-1955 is well described in the IBRD report (p.250-268); at that date, there were 1,400 km of asphalted roads, and 700 km of non-asphalted roads. Since then, an impressive programme has been implemented. The 3 Year Plan (1973-1975) forecasted a programme of 6.66 million JD for roads (Hourani, p.93-94); in fact, about 8 million were spent (5 Year Plan, p.441). During the new 5 Year Plan, 1976-1980, main roads are again privileged: it is envisaged to spend a total of 37,435,000 JD, but rural and agricultural roads will receive only 2.2 million JD (p.441-454).

86. By far the best served district is that of Amman, with a newly completed highway to the University campus at Jubeiha and then northwards to Damascus, and a circumferential road (not yet finished). The bulk of the traffic is in the northern part of the kingdom.

87. Public transportation by road, though recently improved, remains rather poor, especially in the Amman metropolitan region, where taxi "lines" supplement the buses. There were about 7,000 taxis and 500 buses in 1974 as well as some 6,500 trucks.

88. There has been a really impressive increase in the number of private cars. There were about 1,500 in 1951, and IBRD predicted at that time an increase to about 2,000 by 1965. At that date, there were in fact 7,926. The real expansion came later when numbers increased from 10,059 in 1970 and 10,356 in 1971 to 16,101 in 1974. It is quite possible that this number may now be more than doubled.

89. The concentration of all these vehicles in the Amman district is remarkable. The document presented at the Jordan Development Conference on "Amman region and its weight in Jordan's economy" gave at the end of 1975 a total of 47,243 "cars" in the whole country, and 30,825 in the "region" of Amman and added: "there are 30.6 cars per 1,000 persons in the region against 9.8 cars per 1,000 persons for the rest of the country" (p.8).

90. The only railway in the country is the Hedjaz railway, built by the Germans during the Ottoman rule and completed in 1908, from Constantinople to Medina; part of it was destroyed during World War I, and never reconstructed. Coichon, I, 59-61 and the IBRD report, p. 268-277 give some data on this railway. The railway is now used principally for carrying phosphates from El Hassa to Aqaba.

91. The total of goods handled in the Aqaba port - which was a quite insignificant port before 1952 reached 1,553,300 t in 1975. The port is now very badly congested and, except for roll-on, roll-off ships, delays are very long - a situation not different from that in other ports in the region, except Aden. An ambitious expansion is planned (see 5 Year Plan, p.470-486).

92. The situation in air transport is much better. The Jordanian airline, ALIA, carried some 120,000 passengers in 1965, and reached 243,400 in 1974; in 1975 the increase was 56% over 1974. Freight carried reached 3,844 t in 1974, and increased again by 67% in 1975. Two subsidiary companies were formed: Jordan World Airways, for charter freight, and Arab Wings, starting in May 1975, as an air taxi company. The present Amman Airport is inadequate. A new International Airport is scheduled to be operational around 1979-1980 (see 5 Year Plan, p.494). Aqaba airport will also be somewhat improved.

93. The telecommunications situation is not quite so favourable, although better than in some neighbouring countries. It is adequately described in the 5 Year Plan document (p.503-529). There are 9 automatic exchanges and 180 semi-automatic and manual exchanges. Two microwave networks were recently established, one North and one South of Amman. There is an Earth Satellite Station, near Amman, with 13 telephone channels and 3 telegraphic channels (oriented Westwards); an additional antenna will be installed during the 5 Year Plan period to operate via the Telstar for connexion with Near and Far Eastern countries. There are 360 telex lines (300 in Amman), with rather old Siemens machines; the arrival of new models was advertised in The Jordan Times for 1 June 1976. Four new telephone channels to Baghdad were put into service on 1 June 1976, via a coaxial cable, but the connexion is still manual.

94. According to the document for the Jordan Development Conference already cited on Amman Region (see above, para.89), there were in 1973 15 telephones per 1,000 inhabitants in the Amman "region", and 4 per 1,000 in the rest of the country. About 70% of all telephones are in the Amman district. Telephone communications within Amman are normally satisfactory except for certain standards which are evidently overloaded (like that of the Municipality)

95. The postal service seems one of the weakest points of Jordan's infrastructure. Excluding Amman proper, which again is relatively privileged, there are 136 post offices and 309 "postal divisions" for 794 towns and villages - that is, 349 towns and villages are without any postal service at all, i.e. about 44% of the total number thereof (see the document JDC 76/4 for the Jordan Development Conference, May-June 1976 "Financial dimension of the basic social services in the Jordanian villages and remote communities", p.31). In the UNDP Country Programme for Jordan, 1977-1981 (para.65, p.16 of the typescript), there is a sum of $310,000 for "development of the postal service", and in the 5 Year Plan (p.527) a total of 400,000 JD (some $1.3 million is to be spent in five years) for "constructing post offices at Amman, Mafraq, Aqaba, Ma'an and Tafileh". Further attention will be required in the 4th Jordanian Development Plan.

96. I did not find any indication of specialized documentation, information or even library facilities in the whole transport and communications area, except that there is - in the military field - a Royal Jordanian Air Force Technical Library, which apparently was the very first documentation unit in the country (founded in 1953) and receives 45 current periodicals, possesses 4,500 technical reports and has a staff of one "assistant" and four translators.

97. The situation depicted in this chapter has some serious implications for the future information network in Jordan. Delays in obtaining books and periodicals from the outside are long, sometimes extremely long, and the cost of

transport of documents is relatively high. This could be the single most significant bottle-neck for a future NATIS/UNISIST network in Jordan, unless special measures are taken (allocating specialized lines to the future NDC, making special arrangements with ALIA for transport of books and other documents, etc.).

Computers

98. I could only visit the Computer Systems Department at the Royal Scientific Society - which, in any case, is the most developed one. It has a new NCR computer, 256 K, which during my sojourn in Amman was not yet operational (they expected the power supply to arrive soon). Its staff, though not numerous, is competent and its Director, Dr. M. Munthir Salah, is certainly a most efficient and qualified person. There are two other computer facilities, one at the Arab Bank, and one (small) at the Dept. of Statistics. No terminals are available and on-line computer services do not, at present, exist. The Dept. of Lands and Surveys is contemplating the acquisition of a mini-computer and were seeking advice in this area. I was told that computer time is available, and that the existing computers are not used to their full capacity. I could not check this information.

99. Data transmission seems for the moment non-existent. Some contacts between the RSS Computer Systems Dept. and the Telecommunications Corporation (which is responsible for all telecommunications in Jordan, at least in the civil sector) have been established to study this problem. There seems to be no use of European or American computer and/or information networks, and there seems to be little awareness of their potential usefulness in Jordan. The library and documentation unit of Jordan University had, however, just been designated as the Jordan National Focal Point for the AGRIS system.

100. All in all, the computer field is just beginning to develop in the Hashemite Kingdom. The only reference to computers which I could find in the 5 Year Plan document were a small paragraph (p.755-756) on the Electronic Data Processing Center at the Dept. of Statistics, for which 275,000 JD are budgeted (for 5 years) to be used for "the replacement of the existing Central Planning Unit (CPU) (that is, Central Processing Unit) and the purchase of new punching machines and air conditioning system", and two other paragraphs in the RSS chapter, concerning one project for developing the existing facilities at RSS into a "National Electronic Computer Center" and another one for establishing a "Population Data Bank" (p.778-782). However, the budgets envisaged - 595,000 and 720,000 JD, to be covered almost entirely by foreign grants - seem rather low. The total sum for computer activities during the years 1976-1980 is, apparently, only 1,590,000 JD. This does not include whatever may have been foreseen for the military, nor the simulation programme envisaged for the Royal Jordanian Air College which is to be sponsored by the Arab Social and Development Fund (ALIA).

101. Priorities should be revised to provide for faster development of computor activities. It will be difficult to organize a modern, efficient, NATIS/UNISIST system in the country if this is not done. Serious attention will have to be paid, in organizing the future NDC, to the computer field, and - most important - to the possibility of establishing on-line (real time) services, and links with Western and Eastern computer and information networks.

Education

102. Jordan - East Bank - was almost without education facilities before the 1948 events. The flood of Palestinian refugees, many of them more educated than the former "Transjordanians", changed the situation. Now, primary education at least is almost universal; what are called "preparatory" schools - equivalent

to what are called in France "primaire supérieur" - are rather numerous; secondary schools, even if still insufficient in number and available mainly in bigger cities, are increasing in number and there is a good university, comparable by many standards to some in much more developed countries.

103. Facts on education are more accessible than those on many other aspects of Jordanian society: the official pamphlet Education (Ministry of Culture and Information, 1974) can be supplemented by the relevant chapters in Goichon (II, 191-257), the IBRD report (p.297-323), Patai (p.253-261) and by various pertinent notes in Gubser (see the index, under "Education"). Besides, The statistical educational yearbook, published by the Educational Statistics Section, Directorate of Educational Planning and Research of the Ministry of Education, gives a mass of reliable data. On the University of Jordan, the General Catalogue published by the University is useful, although the last edition is that for 1972-1973.

104. The 5 Year Plan has two chapters on this sector, one for "Education and youth welfare" (p.345-380) and the other on "University education" (p.581-602). The respective budgets envisaged for educational development are 14,918,000 and 16,824,000 JD, making a total of 31,742,000 JD, on which the General budget of the Government has to take 11,102,000 and 8,000,000 JD respectively (total: 19,102,000 JD). The University of Jordan will receive a little more than half of the sum planned for "university education": 8,824,000 JD, and the new University of Yarmouk (near Irbid, in the North) a little less than half: 8 million JD. "University education" will have thus a little more than 53% of the total investment for education.

105. The Ministry of Education controls the largest part of the primary and "preparatory" education, but it leaves a substantial part of the secondary education to the private sector. Vocational and technical education, as well as agricultural education, are not well developed. "Scientific" education is mainly restricted to male students, at all levels, and is much less developed than "literary" education, again at all levels. Co-education is still the exception, apart from the University; however, it is slowly progressing.

106. Jordanian decision-makers should now pay more attention to the qualitative aspects of education, as well as to a balance between rural and urban schools, and between primary/preparatory levels and secondary/university levels. Recourse to "active" methods of education (which at present are, apparently, very limited) should imply that the "media centre" become the real centre of the whole school, not only in secondary schools - which are now the only ones having access to something which could properly be called a "library", but also at the elementary and preparatory levels, and even in kindergartens. These media centres will be considered more in detail below.

107. Teachers' training institutes are a very important component of the educational system in Jordan and, in fact, it is there that I have seen the two best libraries depending on the Ministry of Education.

108. Adult education and "life-long" or "continuous" education are, according to the data and information I could collect, at a low level of development in Jordan. No precise figures are available.

109. Implications of this chapter for library and information services planning are numerous, and I will only indicate what seem to me the most important ones. It is most desirable to develop school libraries or media centres much more vigorously, at all levels, and not only at the secondary level, as is the case at present. But it does also appear that public libraries have a very important rôle to play in education, especially through children's branches or

or departments, which are still in their infancy, except in Amman (and, even there, the nice children's department does not lend books). The work with women (and girls) should receive special attention - not only as is now the case in certain municipal libraries (Irbid, for example), by reserving certain days for the exclusive use of women, but by keeping in mind for acquisitions the special interests of women in reading and by special publicity efforts directed towards women (and girls). The contribution of libraries, and especially public libraries, to life-long education as well as to vocational and technical education, would also have to be emphasized, in the absence of a reasonably good system of formal education in these fields. Pedagogical libraries and information centres should be developed; at present, they are insufficient, notwithstanding the valiant efforts pursued at the Educational Documentation Centre (Ministry of Education) and at the Amman TTI for men.

Health, social services

110. Hospitals are quickly developing in Jordan. Indeed, Amman can be proud of one of the best modern hospitals in the whole Near East region, the King Hussein Hospital, in one of the suburbs of the capital, reserved in principle for the Army, but to which, in special cases, civilians can also be admitted. In the provinces, the situation is less good, but at least in Aqaba, a new hospital is being built. For the rural world, new "medical centres" are being created. The 5 Year Plan chapter on Health (p.619-638) gives an estimate of investments totalling 9,042,000 JD for the 1976-1980 period.

111. Very few data are available on the geographical distribution of health manpower. Comparison of the scattered figures available for 1955, 1971 and 1975 indicates that the number of hospital beds has not followed the population increase, and the same is true for the period 1971 to 1975, for the number of physicians. The privileged position of Amman is once again emphasized.

112. Medical libraries are scarce in Jordan. I saw two of them - at King Hussein Medical Centre and at the Jordan University Hospital - which were the only ones cited in the recent Jordan Library Association survey still in manuscript; the older "Survey of special libraries in Jordan in 1967", published in the J.L.A. periodical, mentioned also a small library at the Ministry of Health, one at the Nursing College, one at the Jordan Medical Association and still another at the Pharmacists' Union; I will give below some details on the two hospital libraries visited (one more is said to exist in Irbid). There is a better collection (especially of periodicals) at the University Library.

113. The Index Medicus has been received since 1974 at the University Library, and is also subscribed to (but received irregularly) at the King Hussein Medical Centre, but Excerpta Medica does not reach Jordan (so far as I can ascertain), and neither Medlars nor Medline appear to be available.

114. It would be interesting to conduct a survey (by interviews) to know how the different categories of health personnel get their information. I had no time, of course, for doing that, but I suggest that this could be one of the tasks to be accomplished by the future National Documentation Centre. It might be wise to have in mind the possibility of choosing one place - maybe the Faculty of Medicine of the Jordan University - as the National Focal Point for international networking in the bio-medical field. However, no decision on this matter could reasonably be taken before getting more insight into the medical personnel information needs and habits, through the survey.

Social services (other than education and health)

115. The pamphlet Welfare in Jordan (Ministry of Culture & Information, 1974) gives some indications on the "agencies engaged in welfare work" and "social security" schemes. Except for members of the Armed Forces, social services do not seem at a high level of development, and there seems to be a trend to set these up in the private sector (see the 5 Year Plan, p.645, where among the "organizational measures" proposed is one for "Gradually shifting the auspices of the social welfare institutions from the public sector to the private sector ...". However, the Plan includes also the establishment of a Labour Social Security Fund "with the advice of consultant firms in the Scandinavian countries" (p.664-665) and of a Labour Vocational Training Corporation).

116. Library and information facilities in this sector are few. The Institute of Social (or Welfare) Service (or Work), established in 1966, gives two-year training after the secondary school for social workers; in 1974, it had trained only 131 social workers. In 1967, its library had 1,238 volumes, increased to 2,821 in 1975-1976. The Labour Educational Institute also has a small library, as does the Ministry of Labour and Labourers Library. It will be one of the tasks of the National Documentation Centre to see what can be done to improve the situation of information in this field.

Trade unions, industrial, commercial and other associations

117. The 21 trade unions existing in 1975, with a combined membership of some 30,000 (5 Year Plan, p.653) do not seem to be active in the information field, and there is no sign indicating that the three Labour Cultural Institutes in Amman, Zarka and Irbid (5 Year Plan, p.654) support their "special training programmes" with library activities.

118. Both the Jordanian Federation of Chambers of Commerce, and its most important member, the Amman Chamber of Commerce, on the other hand, are very aware of the importance of information. They are quasi-official institutions, as every private firm must register with a Chamber of Commerce. There are now 21 Chambers of Commerce, including 10 in the West Bank (with which relations are conducted on an informal basis). The Federation was formed in 1954; it is an active member of the Federation of Arab Chambers of Commerce, Industry and Agriculture, which has headquarters in Beirut. The Amman Chamber of Commerce publishes a monthly commercial bulletin (in Arabic). It is envisaged, by both the Amman Chamber and the Federation, to collaborate with one or two local newspaper(s) and publish economic page(s) on a weekly basis, in Arabic and English.

119. The law of 1949 on Chambers of Commerce and Industry was replaced by another in 1961, as some industrialists preferred to have their own, separate organization. This law envisaged the creation of Chambers of Industry throughout the country, but in fact only the Amman Chamber of Industry was formed; it has published 5 editions of a directory, the most recent appearing just in time for the Jordan Development Conference of May 1976. This directory, already mentioned above (para.75) is, however, far from complete. The Amman Chamber of Commerce and the Federation are now jointly housed in downtown Amman in quarters, where lack of space prevents the organization of proper library and information services. They are building a new building in the quarter of Shimisani, near the one which houses the various professional associations (see below, para.121). Their intention is to develop, there, more adequate information facilities.

120. The Amman Chamber of Industry is lodged in inadequate premises, also downtown; it will also soon get new premises. It might be possible to envisage there, as for the Chamber of Commerce and Federation, a reorganization of information services. Closer co-operation in information activities between the

Federation and the Amman Chamber of Commerce, on one side, and the Amman Chamber of Industry, on the other side, is to be strongly recommended as far as information activities are concerned. Both seem to be in a rather good position to serve the information needs of enterprises, more specially on economic, fiscal and regulations questions.

121. We have already referred to the limited information resources of two professional associations, those of physicians and pharmacists (para.112). With the corresponding professional associations of dentists, engineers and agricultural "engineers" (the latter comprising also technicians), they have headquarters in a new building which does not include a library and information centre. It does not seem that the Jordan Engineers' Association has any information activity. However, it could certainly be used as a mechanism for undertaking a survey aiming at studying the information habits and needs of engineers (who, at present, seem to rely basically on personal contacts, participation in conferences, going to technical exhibitions, etc., the printed word playing a quite subordinate rôle).

122. There are a few other associations which can be mentioned here. Eng. Khairy himself founded an Association of Jordan Geologists. There is an active society called Friends of Archaeology, situated at the American Center for Oriental Research, which organizes field trips, lectures, etc. The "Jordan Folklore Club" is an informal group of people interested in folklore. The Royal Society for the Conservation of Nature is said to be rather inactive. The Jordan Press Association, another of the professional associations, or unions, to which people working in the field are, by law, required to register, is not very active. The Jordan Economists' Association whose President is Dr. Hashem Dabbas, Deputy Minister of Industry and Trade, has a more or less official character. Finally, the Jordanian Writers' Society publishes literary works and organizes poetry recitals, sponsors art exhibitions and, in June 1976, sponsored the "First Annual Literary Week".

Government: legislative, executive and judicial branches

123. Jordan is a constitutional monarchy; as such, it has a Parliament, the beginnings of which are traced to 1929, when the first election was held. There are normally two Chambers, but the Chamber of Representatives is not at present functioning; the Senate (30 members, nominated by the King) is beautifully housed in new buildings, not yet completed, near an area designated to regroup, in the 1980's, the majority of Ministries and other official bodies, now widely dispersed. There is a library, which when I was there was temporarily housed in a room also used for meetings; this is rather large (some 300 m^2 maybe) but with very inconvenient high and partly closed shelves, and no specialized personnel. It has, however, a reasonably complete set of parliamentary papers, laws, etc., Official Gazette, and some foreign material obtained by exchange: in all, some 6,000 volumes (including 4,000 in Arabic) and some 25 periodicals. It will be transferred to another location near where the Chambers will assemble, when the building is completed.

124. In the Executive, there are the Royal Court and the various Ministries. At the Court is kept the personal library of late King Abdullah, and many archives materials. We have already mentioned some libraries of Ministries (para.58, Ministry of Agriculture; para.116, Ministry of Labour and Labourers). The manuscript of the 1976 Directory of Libraries, prepared by the Jordan Library Association on the basis of information received from the libraries themselves mentions only four ministerial libraries, those at the Ministry of Finance (with one "trained" librarian) the Ministry of Labour (already mentioned), the Ministry of National Economy /now of Industry and Trade/ (with one "trained" librarian, 1,300 volumes /200 in Arabic/, 70 periodicals /20 in Arabic/), and

the "Works Department Library" indicated as founded in 1974, but which in all probability is the library of Ministry of Public Works already mentioned in the 1967 survey (one "trained" librarian and 502 volumes).

125. The 1967 Survey mentioned two other Ministries as having libraries: the Ministry of Foreign Affairs (created 1962, 6,500 volumes, incl. 2,500 in Arabic, 35 periodicals (5 in Arabic), 1 trained librarian (trained abroad) and two assistants); the Ministry of Health (created 1953, 861 vol. in foreign languages, 35 periodicals, one trained librarian). The Armed Forces maintain at least eight different libraries, including one at the G.H.Q. (created 1971, 3,266 vol. - 2,351 in Arabic, eight periodicals - two in Arabic, one trained librarian) the Air Force Technical Library already mentioned (para.96) and six libraries for the various schools, colleges and military academies, as well as the King Hussein Medical Centre's library (para.112).

126. This list is not exhaustive, as Ministries operate many other libraries and/or information facilities, mentioned elsewhere in this report, and control various Commissions, Authorities, Councils, etc. having their own facilities. The preparation of an organizational chart showing their connexions with ministries would be a kind of by-product of a comprehensive Census of Library Documentation and Information Facilities which will certainly constitute an urgent task for the new National Documentation Centre.

127. Two other institutions pertaining to the area of the Executive must, nevertheless, be mentioned here. First, the Civil Service Commission (ex-Personnel Bureau) whose library, created in 1955, had in 1967 one trained librarian, 685 volumes (inc. 439 in Arabic) and whose collection has now been increased to 1,000 volumes (700 in Arabic) and 165 periodicals. The Institute of Public Administration was created in 1968, with assistance from the Ford Foundation, which conducts in-service training through short courses but, up to now, no pre-service training. Its library which was not included in Mr. Dahbour's survey, contained in 1972 1,262 volumes in Arabic, including new acquisitions of past year (200 v.) and 681 vol. in English (inc. new acq. 150 v.). In 1974, there were 1,453 vol. in Arabic and 818 in English. The total area is about 200 m^2. The library of the I.P.I. includes a collection of the Official Gazette from 1928 on (very few complete sets of this are, I was told, preserved in the country) a collection of laws and regulations classified by ministries.

128. I had no time available to look into the area law libraries. I saw no mention of libraries pertaining to the various Judicial Courts, and the only law library I have been able to identify is that of the Jordan Bar Association. Under the name of Advocates Union Library (different translation of the same Arabic designation), it was indicated in 1967 as founded in 1951 (in the new survey: 1953) and containing 1,230 volumes (1,100 in Arabic) and 11 periodicals (eight in Arabic), without personnel. It has now (1976 J.L.A. survey) 2,000 volumes and 30 periodicals, and one assistant. The Bar Association is not lodged at the Professional Unions Building in Shimisani, which was built for the "scientific and technical" unions, and not for those pertaining to the human sciences.

FINANCE

Banking

129. The Banking sector in Jordan is growing in importance. And it is one where the basic need of good information systems is openly recognized. According to the 5 Year Plan document (p.123) "There are 12 licensed commercial banks in the Kingdom, of which four are Jordanian and the rest are Arab and foreign. These

banks maintain 70 branch offices, of which 41 are in Amman". However, the JDC document on Amman region (p.6), though coming from the same administration (the National Planning Council), gives slightly different figures: 12 "operating banks" in Jordan, "having 65 additional branches in the whole country. Thus, out of the 77 operating headquarters and branches, 55 (71%) are found in Amman". It added that "Total employment in 1976 in the banking sector is 2,260 of which 1,789 employees are in Amman. Ninety-five per cent of the credit extended was to activities and persons in the Region". And an article in the special issue of The Jordan Times published for the JDC (1 June 1976) has still other figures: "Among the 14 existing commercial banks in Jordan, half are foreign". These variations undoubtedly reflect the remarkable increase to which the Jordanian banking system was subject during the last three years following the petrodollar boom and, later, the Lebanese events.

130. The most important Jordanian commercial bank is the Arab Bank, founded in 1930 in Jerusalem, and now seated in Amman, which is one of the 500 largest banks in the world. It is said to have over 35% of the market in Jordan. It has a small library, created in 1955 and which, in 1967, had 615 volumes (189 in Arabic) and 23 periodicals (12 in Arabic), one trained librarian and one assistant. However, the most important element of the Jordanian banking system is the Central Bank of Jordan, established with the technical assistance of the Bank of England in 1964. The C.B.J. has a good Economic Research Department, probably the best team of economists in the country, and its publications (Annual Report, Monthly Statistical Bulletin) are the most reliable sources on Jordan's economy. Its library was founded at the same time as the Bank itself; three years later it had 3,000 volumes and 26 periodicals (6 in Arabic); in 1969, 4,500 vol., 45 periodicals (10 in Arabic), in 1971, 50 periodicals (20 in Arabic) were currently received, and 446 volumes acquired (126 in Arabic). In 1976, it has about 10,000 volumes (75% in English) and about 100 periodicals. Its librarian is fully trained. It occupies about 210-220 m^2, not including a small conference hall. The library is used by the students of the Institute of Banking which begun operations in 1971 (two years' course after secondary school). It publishes a monthly list of accessions, and conducts some inter-library loan activities with the University Library.

131. There are a number of specialized credit institutions. The first one, the Development Bank, established in 1951, ceased to exist in 1967, and was more or less replaced by the Industrial Development Bank (created 1965). A Municipal and Village Loans (or Credit) Fund was set up in 1952 (reorganized 1966) as was an Agricultural Credit Corporation (1959, beginning its activities in 1960, and which replaced various older institutions: see Goichon, 521-528). More recently founded are the Housing Agency, the Postal Savings Fund, a small Corporation for the Management of Orphans' Assets. The Jordan Co-operative Organization can also be classified, at least in part, as belonging to this array of institutions. I did not hear or read anything about library/information activities in any of them.

Public finance

132. Table 10 summarizes some facts concerning the central government budget.

TABLE 10

Central Government Budget, 1967-1975

	1967	1968	1969	1970	1971	1972	1973	1974	1975
Expenditures (1,000 JD)	68,146	80,520	88,400	80,706	83,147	101,535	114,704	151,504	181,223
Per cent covered by foreign receipts		54	48	47	51	55	50	41	58
Current expenditure (1,000 JD)	44,650	57,186	65,231	58,078	60,735	70,467	76,205	104,839	
Per cent current expenditure for education	10.9	8.8	8.5	11.0	10.3	9.4	9.5	11.6	
Per cent current expenditure for defence and police	61.4	67.2	69.0	64.4	63.5	62.4	58.4	53.9	

Sources: Stat. Ybk.1974, p.172-173 (for 1967-1970); Central Bank Monthly Statistical Bulletin, Febr.1976, for 1971-1975. Note: The figures for current expenditures given by Stat. Ybk. for 1971-1974 and those of the Current Bank are different. I have taken the latter for calculating the percentages of current expenditures for education on the one hand and defence and police on the other hand.

- 32 -

37

36

The high percentage of "foreign aid" in the total resources of the Government and the very high percentage - although decreasing slowly since 1969, when it was at its peak - of military and police expenses are notable. The percentage of current expenditures for education remains rather stationary.

133. Municipalities in Jordan are poor, and this is true even for the richest one, Amman. According to figures given in the Dipl. Eng. thesis of S. Hourani with the collaboration of K. Nikiforaki, Regional planning analysis in Jordan and Amman's urban development (Faculty of Technology, Aristotelian University, Thessaloniki, December 1975, p.48), the budgets of municipalities were on the average the following for the different governorates: Amman, 3.09 JD per inhabitant; Ma'an, 2.81; Karak, 2.08; Irbid, 1.20; Balka, 1.01.

134. There are no estimates available concerning the sums spent for libraries, archives, documentation and information services, either by the Jordan Government or by regional and local authorities. Indeed, collecting these data would represent a considerable task, as almost all these services have no fixed budgets of their own. The J.L.A. does intend to conduct such a survey. It could perhaps be easier for the future National Documentation Centre to obtain correct information, and it might be advisable to recommend the organization jointly by the N.D.C. and the J.L.A. of a comprehensive survey of information facilities, including the collection of financial data.

135. In many cases, official acquisition budgets are more easily available, but one must take care in using these figures since the sum budgeted does not always correspond to that actually spent; it is apparently rather frequent that part of the budget established cannot be used. I was told that this fact explained the discrepancy between two different figures I got for the acquisition budget of the Amman public library - the higher figure (5,000 JD) being the theoretical budget and the lower one (3,000) being that for practical purposes at the disposal of the librarian.

136. Anyhow, library and information budgets are very low, by any standards. Three thousand JD for the Amman Public Library, which - at least theoretically - has a potential users population of some 150,000 literate people above 15, plus some 190,000 or more children 6-14, is a very small sum indeed. The more so for Irbid, a city of some 115,000 inhabitants where the Public Library had in 1975 an acquisition budget of JD 487,280 fils - about 14 U.S. cents per inhabitant. This figure is that given to me by the librarian, after asking his City accountant.

137. The only library in Jordan with a reasonably adequate acquisitions budget is the Jordan University Library, with about 100,000 JD for books and periodicals (officially 90,000, but here there is, contrary to the usual pattern, more money actually available than budgeted). Such a budget - about U.S. $330,000 - compares favourably with the recent (1972) standards recommended for the German (F.R.G.) university libraries: 650,000 DM, that is about U.S. $260,000.

Prices and salaries

138. Inflation has severely hit Jordan during the last two or three years, and more especially since the Lebanon crisis. The general trend was a moderate inflation from 1969 to 1973, and then a rather abrupt increase of prices. In March 1976, the Amman index was at 229 (base 100 in 1967), and the Aqaba index for February 1976 was at 225.8 (base 100 in 1969). The prices of land and rents in Amman are very expensive. This situation might have serious consequences if a programme of library buildings - which would have to accompany any real development of library and information services in the country - were to be planned.

139. Wages and salaries have also increased, but not at a uniform rate. A plumber might earn 30 JD/day, but at one documentation centre in a ministry, the head of the centre is earning 74 JD/month. An agricultural engineer in Class VI of the civil service (which has 10 classes, the highest being numbered I) earns some 72 JD/month; a civil engineer at the same level gets 104 JD/month. In private industry, a young engineer might earn 150 JD/month, but if he goes to one of the Gulf States, he will be offered 1,000/month, plus maybe a house, a car... It is not surprising that there is a serious "brain drain" in such conditions, and that the turnover of qualified personnel is very high. It is true that civil servants do have some advantages (including a social security scheme) and the Government recently announced some measures including special co-operatives for government employees, increased housing facilities, etc. If a policy of development for library and information services is adopted difficulties in recruitment of qualified personnel, except in such institutions, as the University of Jordan and the Royal Scientific Society, where flexible regulations for salaries exist are bound to be encountered.

Research and development

140. Data on R&D in Jordan are very scarce. In 1973, there were some 180 "scientists and engineers engaged in R&D": 58 in the Higher Education Sector and 122 in the General Service Sector (natural sciences and agriculture only). In the same year, budgets would have amounted to JD 898,916 for the Higher Education Sector and 179,196 for the General Service sector, "no data being available for the Production sector" (p.13 of the document for CASTARAB: "Summary Statement on National Science and Technology Policy in Jordan").

141. Another set of figures can be obtained using the Employment Survey for April 1975 (see above, para.41). According to this survey, there would have been at that date 299 "research workers", including 17 women, distributed as indicated by Table 11.

TABLE 11

Research Workers according to the Employment Survey, April 1975

Chemical ore mining	58
Manufactur. of food, beverages & tobacco	3
Manufactur. of chemicals	10
Manufactur. of non-metallic products	5
Wholesale trade	1
Educational services	19
Public administration and defence	198
Medical services	5
Total	299

Due to the fact that the E.S. is based on questionnaires, and that the definition of "research workers" is in all probability rather vague, these figures must be taken with great caution. It must also be observed that they do not take into account the agricultural sector, but that probably most of R&D personnel in this sector is, in fact, included in the "Public administration and defence" sector. The main discrepancy between the two sets of figures is for "Educational services" 19 persons according to the Employment survey, and 58 in the CASTARAB document.

142. R&D in Jordan had already begun just before World War II in geology and hydrology, and it was in the same field that further progress was made during the 1950's, when Eng. Khairy succeeded in arranging for the German Geological Mission. In the meantime, agricultural R&D had also begun. In 1964, the Jordan Research Council was established, at the beginning on a purely "voluntcer" basis and under bylaws of the Ministry of Education. Limited funds were provided beginning in 1969, but the J.R.C. was not established on a firm basis until the law of 16 August 1972 which attached it to the Prime Minister. The JRC gave contracts to research teams or to individual researchers, mainly but not exclusively within the Jordan University. A total of about 70 contracts were made. The JRC was dissolved early in 1976 and has not been replaced by another institution.

143. A Royal Decree founded in 1970 the Royal Scientific Society, as an "independent, non-profit organization". Its policy board being presided over by H.H. the Crown Prince Hassan, the R.S.S. quickly obtained large funds and good physical facilities. It started a project for creating a scientific library, on which details will be given later, and organized a computer centre (see above, para.98), and a printing and publication department. We already have referred to its Economic Research Department (para.57), and the agreement under which the Building Materials Research Center was transferred to the R.S.S. (para.69) as well as to its project for an Energy Application Research Center (para.65). The RSS 5 Year Plan 1976-1980, published as a separate pamphlet was included without modifications in the official 5 Year Plan document; this envisages an investment of 4,879,000 JD, coming in the main from foreign grants (3,344,000 JD), and some 3/5 of the total to be spent during the two first years 1976-1977. It includes, among others, 680,000 JD for the "National Science Library", 595,000 JD for the Electronic Computer National Center, and 720,000 JD for a "Population Activities Information Bank".

Planning

144. Planning on the national level began in Jordan in 1952 with the creation of the Jordan Development Board, reorganized several times and renamed National Planning Council (see Goichon, II, 48-52). Since 1965 it has included a Research Section. Evaluation of the results was for some time made by a special unit (PUSIC) at the Royal Scientific Society, but this unit has now been transferred to the N.P.C. Documentation at N.P.C. is not centralized. Since 1963 there is a library (not included in the new J.L.A. Survey, and which I could not visit); the JLA 1967 survey indicated that it had 1,120 volumes (200 in Arabic), 20 current periodicals (10 in Arabic) and one trained assistant. But, of course, NPC itself is an important source of information (see above, for instance, for the manpower studies, para.32).

145. Regional planning and urban planning are less developed. The Jordan Development Board proposed a "sectoral plan" for Amman covering the years 1963-1970, but it was apparently never implemented. Aqaba has had a Town Planning Authority since 1961, and it is in fact the only city in Jordan where urban planning has been really active, the famous Greek urban planner Doxiadis (who was a member of the IBRD team in 1955) having prepared a first development plan there during the early sixties. The city of Amman has a Planning Department, with a number of good specialists. The Jordan Valley is another region where planners have for a long time exercised their talents and there is an ambitious regional plan for the Valley, with creation of new towns, etc. (On the history of regional and urban planning in Jordan, see Goichon, II, 16-32 and 563-567.)

146. Sectoral planning takes place in the various ministries; in fact, each Ministry has a more or less active planning unit. That of the Ministry of Education is particularly active.

147. Libraries, documentation and information services have not occupied up to the present a very conspicuous position in official planning documents. As yet, no comprehensive plan for their development has been prepared. However, some references can be found to libraries and/or documentation or information centres in the 5 Year Plan: for instance on page 535 one finds... "Completing the current studies in respect of expansion in opening public libraries in municipalities and other popultion centres and furnishing them with books and scientific and developmental publications and contacting foreign authorities to assist in realizing the idea of national network of public libraries". But no special fund is allocated for that purpose; "The necessary allocation should be allotted in the recurring budget of the Ministry of Culture and Information". On the following pages (535-537), a sum of 200,000 JD (including 180,000 JD of foreign grants) is included for a Development Information and Training Center, and 50,000 JD (30,000 foreign grants) for the construction of a building "suitable for keeping official and private documents" and its furnishings under the title of "Documentation Centre". On p.540, 18,000 JD (foreign grants) are expected to permit expanding the Folklore Museum and publishing books and studies on folklore, as well as for improving the Jordanian Folklore Troupe. On page 556, it is mentioned that the present rented school buildings are inadequate, and that in particular they are not adapted to library purposes. But in the paragraphs concerning the construction of school buildings (p.556 and 572-573) no special provision is indicated for media centres. Libraries, however, are mentioned on p.573, where it is indicated that 1.5 million JD are expected from I.D.A., U.S. AID and German contributions for the Jordan Valley schools. On the other hand, libraries or documentation centres are not foreseen by the Plan for the new Faculty of Engineering or the Faculty of Law, neither for the "Model School" at the University of Jordan (p.590-593). A modest sum of 60,000 JD is allocated for expanding the present University Library building (p.597-598). No special allocation is mentioned for the University Library (or libraries) in the 8,000,000 JD to be spent for the University of Yarmouk (p.598-599). Library or information facilities are not mentioned in connexion with the two "Pilot Development Centers" which are to be completed and the third one to be created with an estimated budget of 208,000 JD (p.648-649); these centres are aimed at promoting the manual crafts. Furthermore, libraries are not specifically mentioned in budgeted allocations for the "Administrative complexes" at Irbid, Karak and Salt (p.688-690), but I was told, when visiting the Irbid Public Library, that a new building for this institution - which is badly in need of expanded facilities - is envisaged in the Complex for that town. However, the librarian has apparently not been consulted for planning its building. On pages 718-719 of the Plan, 140,000 JD are planned - from foreign grants - for building branches of the Amman Public Library. Finally, 981,000 JD (including 471,000 in foreign grants) are provided for expanding the Department of Statistics, and there is no doubt that part of this sum will be allotted for improving the data banks of the Department. For the Royal Scientific Society plans, see above, para.143.

148. Modern planning - national as well as regional - includes measures to be taken for the protection of the environment. In this very important field, Jordan does not seem to be in the forefront. Realizations have been slow and partial, and some measures, like the decision to create a new fertilizer plant on the coast at Aqaba, notwithstanding the serious danger to the environment prove that decision-makers are not always aware of these problems. Plans for tourist developments at Petra and Wadi Ram also need to be restudied. I would recommend giving a very high priority to actions for developing information services on environment control, with emphasis on informing decision-makers of new trends in environmental protection.

II. THE INFORMATION SITUATION

USERS STUDIES

149. There have been very few studies in Jordan on users of information, their needs and habits. At the Seminar on Women held in 1976, there was mention of studies using the audience of radio and television programmes to criticize the content of these programmes. In the same seminar some use was also made of content analysis of newspapers and magazines concerning the "image of Jordanian women". I also found reference to a kind of survey of the use made of Teachers' Institute libraries, by Suleiman Khashroum, librarian at the Curricula Directorate of the Ministry of Education, and Younis al-Kharouf, from the Huwara Teachers' Institute, but I was unable to get a translation of this study.

150. Among the people interested in the psycho-sociology of communication in Jordan are Dr. Yahya Sheqwara at the Royal Scientific Society, whose doctoral thesis was on Jordan's mass media, Mr. Omar El-Khatib, who made plans for creating a Communications Training Complex at the University of Jordan, and Prof. Sati Nasir, Head of the Sociology Department at that University, who was in England during the period of the mission. It is, therefore, recommended that the new National Documentation Centre, as soon as possible, establish plans for conducting surveys of reading and information habits in various strata of the Jordanian population: scientists and engineers as well as decision-makers, professional people - and also the "general public", children and adolescents.

MEDIA

Radio and television

151. Jordan's Radio and TV was much criticized at the Seminar on Women, but it is developing. I visited the Radio facilities, which are at present badly crowded, but being expanded. The library has an area of about 100 m^2, with some 15 seats and about 10,000 books. The small reference section is not strong, and there is no trained personnel. When the new building is completed, the situation will most probably improve. The music library has some 32,000 cassettes, and manual card indexes to song titles, text titles, composers, singers - technically rather crude, but seemingly efficient, plus a Diebold Listed Mechanized File, Model 257 A, 62503; of rather doubtful value.(1) I had no opportunity to visit the TV libraries. From an article published in Rissalat al-Maktaba (10 (1) March 1975, by Yousef Qandil) we learn that there are five different libraries: for books, musicals, films, news and video-tapes. The library properly speaking has 3,000 books and receives 35 periodicals, according to this article, but in the J.L.A. survey is indicated as having only 1,350 volumes (800 in Arabic) and 30 periodicals (20 in Arabic), and one trained librarian. At the Curriculum and Audio-Visual Directorate of the Ministry of Education, I saw some good educational television programmes, which had been prepared jointly by professors from the University of Jordan and the TV people. Some 90 programmes on various subjects had been prepared. Educational TV programmes are recorded on video-tapes. The Curricula and A-V Directorate is also collaborating with the Radio for educational broadcasting.

Cinemas, films

152. Jordan has no film industry. Amman is rather well equipped with cinemas, but the situation in provincial towns is less satisfactory, as the total number of cinemas, which was 51 in 1964 and 49 in 1965 dropped to 32 after the

---

(1) The Broadcasting library was founded in 1958-1959; in 1967 it had 7,672 volumes (7,000 in Arabic) and 68 current periodicals (59 in Arabic). The J.L.A. survey indicates, for 1975, 12,007 volumes (10,137 in Arabic) and 85 current periodicals (76 in Arabic). Personnel consisted of 6 assistants in 1967, 4 in 1975 and now 2.

loss of the West Bank, and was still only 36 in 1974 (East Bank). The number of films shown is more or less stable since 1969, around 4,500, some 40% being in Arabic (in 1974: 1,797 Arabic of a total of 4,428). The use of scientific, technical and medical films is apparently very slight. Ethnological films (or videos) are non-existent, which is deplored by the enthusiastic people at the Folklore section of the Ministry of Culture and Information; but no adequate equipment is available, and it is not with the 18,000 JD envisaged by the 5 Year Plan for all folklore activities (see para.147 above) that it will be provided. There is no Jordanian film library, but the cultural centres provided by the American, British, French and German embassies all have film collections, from which loans are made to Jordanian institutions (mainly schools). In addition, USIS has a video-tape collection, which is used only on its own premises.

The Press

153. There is an official Jordan Central News Agency, well equipped with teleprinters. It has a staff of 12 reporters. There is a small but good file of news bulletin cuttings, classified by subjects which includes clippings of Jordanian newspapers, too; I was told that it is the only one in Jordan. It has been organized in the last three or four years.

154. There are three daily newspapers in Arabic and a relatively new one in English, "The Jordan Times". Their total circulation is estimated at about 35 to 45,000 copies, and their content is more or less standard, being based on the news bulletins of the Central News Agency, plus some material taken from foreign press agencies (mainly Reuters and AP) and telephotos from the same sources. So far as I know, none of them maintain a library or documentation centre. The same is true of the two or three weekly papers. There is, of course, an Official Gazette.

155. There are few periodicals and magazines. There is a magazine of touristic interest, "Jordan", in English; the Directorate of Culture and Arts of the Ministry of Culture and Information publishes a literary and cultural review, and one on folklore which is of good quality. There is also a valuable Annual of the Department of Antiquities, a medical journal, an official periodical of the Ministry of Education (to which teachers are obliged to subscribe). On the whole, Jordanian periodicals are scarce, and Jordan depends very much on other Arab countries where the Press is more developed, especially Lebanon, and to a lesser degree, Egypt. Newspapers from Lebanon, Egypt, Syria and Kuwait are widely read. About 150 copies of the International Herald Tribune come by airmail to Amman, but other "Western" papers, including "Le Monde" arrive late and irregularly.

156. The consultant was unable to locate a bibliography of Jordanian periodicals, current or retrospective. If it is confirmed that this does not exist, a compilation of this kind would be a valuable task for the new National Documentation Centre in the near future.

Publishing and bookselling

157. Publishers in the usual meaning of the term do not exist in Jordan. The Jordan Distribution Agency, an active firm which publishes one of the three Arabic language dailies (founded in Jerusalem by the father of its present owner, Mr. Elissa) and is the sole general distributor of Jordanian and foreign periodicals, occasionally publishes one or two books. The majority of Jordanian authors have their books printed in Beirut, Cairo, etc., and sell them either directly or through Lebanese or Egyptian publishers. However, the State acts as a publisher, especially the Ministry of Education for textbooks which since 1964 are distributed free to pupils, and the Ministry of Culture and Information, whose Department of Press and Publications had been originally conceived on the model of "La

Documentation Française", but has in fact restricted its activities to the publication of some pamphlets in English and of a larger number in Arabic, which it utilizes for exchange with other Arab countries. It maintains, however, a library which has a rather good collection of "Jordaniana", resulting from copies deposited at the Ministry for censorship purposes.(1) The Department of Culture and Arts, which is another part of the same Ministry, has since 1969 been a rather active publisher of books on various aspects of Jordanian culture: about six to eight a year, printed on the average in 2,000 copies. Other Ministries occasionally publish books and frequently issue reports, etc. The University of Jordan also publishes some books written by its professors, but up to now has no University Press properly speaking. The Publications Department of the Royal Scientific Society had rather ambitious plans, but its main activity is publishing processed copies of R.S.S. reports; in the R.S.S. 5 Year Plan, there is a project for publishing science books for children, with a sum of 65,000 JD (29,000 from a Saudi Arabian grant, and the remaining 36,000 JD expected from other foreign sources).

158. Bookselling is practically limited to Amman, and even there is not much developed. I visited a dozen or so of these shops, frequently called "Libraries". Most of them are stationers rather than booksellers. Libraries order foreign books through the Sharbain bookshop. I had an interesting talk with Mr. Sharbain, who complained about the long delays in getting books through the Aqaba port, and the very high transportation costs. He does not maintain a big assortment of books, but according to all testimony, he is efficient in getting books on order. The Jordan Distribution Agency, mentioned above, also has a bookshop with a limited but well chosen stock.

Legal deposit, national bibliography

159. There is no legal deposit in Jordan. For censorship reasons, copies of all periodicals and books printed or distributed in bulk in the country are passed to the Ministry of Culture and Information; part of these copies serve, as already mentioned, to augment the collection of the Press and Publications Department. A draft Legal Deposit Law prepared by the Jordan Library Association, has not yet been enacted. In the absence of such a law, three institutions have attempted, by purchase and by contacting authors and Government departments, to create collections of Jordaniana: the University Library, the Municipal Library of Amman, and the Royal Scientific Society Library. None of these collections is complete. The Natural Resources Authority Library has an almost complete collection of reports limited to the subjects of interest to NRA.

160. There is no official National Bibliography. It is, of course, impossible to prepare a comprehensive national bibliography so long as there is no effective legal deposit system. Mr. Akhras has done a pioneer work in publishing, since 1970, an annual bibliography of works published by Jordanian and Palestinian authors during the preceding year (appears in Risalat al-Maktaba, each March issue). However, it is not a complete national bibliography, the main (and important) omission being all official publications and processed editions. Table 12 gives the number of titles contained in Mr. Akhras' bibliographies.

---

(1) This library, founded in 1958, had in 1967 one assistant, 2,119 books (1,682 in Arabic) and 70 periodicals (50 in Arabic). According to the J.L.A. 1975 survey, its collection is now 3,300 volumes (2,620 in Arabic), the number of periodicals being unchanged. There are 5 people working there. The acquisition budget amounts to 1,000 JD, but many items come free.

TABLE 12

Number of titles in Mr. Akhras' Bibliographies of Jordanian and Palestinian authors

Year	Number of titles
1969	117
1970	69
1971	107
1972	125
1973	190
1974	192
1975	169

Source: counted in the bibliographies. For 1969, including 43 titles in a supplement (publ. in 1971).

DATA BANKS

161. There are at present no data banks, properly speaking, in Jordan. The R.S.S. has what is rather incorrectly called an "economic data bank": in fact, it is a collection of statistical information taken from several sources (mainly the Dept. of Statistics and the N.P.C.) for use by the now defunct PUSIC team and the Economic Research Department of the Society.

162. Within the frame of the "Population Activities Information Bank" envisaged in the R.S.S. 5 Year Plan, the creation of a data bank assembling all information concerning the Jordanian population, which would be something like the French SAFARI project is envisaged. It remains to be seen if this rather controversial project will in fact be realized.

163. The Department of Lands and Surveys is faced with an almost unmanageable situation owing to the methods used at present for recording changes in land properties. It is an antiquated system which involves labouriously scanning registers to find the names of owners. The Department asked counsel on how to computerize this system. It is recommended that a team be sent to investigate what has been done in this field in European countries, for instance at the Greater London Statistical Unit, at the French Cadastre and APUR, etc., before taking a decision.

164. Mention has been made above of the partly realized data bank on Jordanian university graduates at the former J.R.C. (see para.53, above). It is to be recommended that this project be rescued and brought to a successful conclusion, which seems quite possible if adequate means are provided.

LIBRARIES: GENERAL (ENCYCLOPAEDIC)

National library

165. There is no national library in Jordan. The Jordan Library Association submitted plans for establishing a national library (based on the legal deposit: see the article by Sudqi Dahbour, Risalat al-Maktapa, 7 (1) March 1972). The nearest approximation at present to such a library is the University of Jordan

Library, but as its Director, Dr. Asali, told me, there is no sense in calling it "National Library" unless it is to be given adequate means for accomplishing the corresponding new functions. On the other hand, the plan included in the R.S.S. 5 Year Plan for creating a "National Library for Science and Technology" could appear, at first sight, as a step towards the establishment of something like the British Library. However, R.S.S. is, notwithstanding its Royal Charter, a private body; access to it is much restricted; no real collaboration exists between its present library and other libraries in the country (including the University Library, even though it is nearby at a distance of less than one mile...). Besides, in a small country like Jordan, it might seem unwise to create a special, separate, "National Library" for science and technology. For all these reasons, my recommendation would be to modify this plan and, instead of implementing the project of NLST, to join the future Jordan National Library to the proposed future N.D.C.

Public libraries

166. As in many other developing countries, public libraries are the weakest part of the global library and information "system". Three surveys are available from which information can be obtained on their development: one conducted by J.L.A. in 1967 (Rissalat al-Maktaba, vol.2), one contained in the Parker Report (see para.34), appendix C, and the last one, still unpublished, as part of the general survey made for preparing the J.L.A. Directory of Jordan libraries (1975).

167. I visited two public libraries: those of Amman and Irbid, which are the two oldest and most important on the East Bank. The Amman Municipal Library is well placed, almost at the centre of the commercial quarter; its area is about 800 m^2 on three levels of two buildings. The adult departments are on the first and second floors of what was to be a Court, but which was taken over by the Municipality. On the first floor, there is a good reference section, a small periodicals room, and a room for a collection of documents on Amman (and Jordan), with a deposit collection of Unesco documents. Another room was, unfortunately, taken by the Mayor for the "cultural adviser" of the Municipality. On the second floor, there is a reading room with the Arabic section, the English section, and a very small office (about 11 m^2) for the librarian. The children's department is on the ground floor of the main Municipal Building - about 200 m^2. The accession and cataloguing section is badly crowded in the first building. There are 18 people on the staff, including the librarian, who is the only one having a professional degree (Liverpool); 14 others have followed various short courses either at the J.L.A. or at the internal training course organized by the Library itself. The young lady in charge of the documents collection is going to Paris in October to follow the Post-Graduate course organized under the auspices of the French National Commission for Unesco. According to the 1975 J.L.A. survey, there are 52,123 volumes in stock (42,923 in Arabic), 290 periodicals (192 in Arabic), 20 newspapers (6 foreign), 169 films (94 for children), 79 maps, 386 slides, 16 records for children, 32 tapes (14 in Arabic and 18 in English) and 18 cassettes. All collections are on open shelves. Some 10,000 active readers borrow about 55,000 volumes per year, but children's books are not lent. There are about 2,500 new registered readers a year. The library is open 10 hours per day, and there are even opening hours on Friday. There is one branch library in a popular quarter, and 5 other branches, also in popular neighbourhoods are to be created during the next 5 years.(1) The Library is a member of INTAMEL, the international association of metropolitan libraries. Since all this is accomplished with an extremely small acquisitions budget of about $ U.S. 10,000, one is

(1) The librarian told me that they receive 51 periodicals (including 16 as gifts) plus 5 newspapers.

astonished by the results, which are due to the devotion, enthusiasm and professional consciousness of Mr. Mo'az, the Librarian, and his staff. There are, of course, some shadows in the picture; space will very soon be quite insufficient; the English language collection is in need of renewal (but no money is available for that purpose). On the whole, however, it is a remarkable institution, which deserves much praise. It is a pity that the financial support it receives from the Municipality is so small, and that the State does not contribute a penny to what is without doubt one of the most valuable cultural achievements in the country.

168. The library at Irbid is less good. It was the first one in Jordan, and was established in 1957, as a "pilot" project supported by Unesco. Here also, the librarian is a most active, progressive and efficient person, but he is fighting within a less favourable environment. Its very small total annual budget was noted above before (para.136). The total area is about 140 m^2 including some 36 m^2 for the offices. The collection was given in 1973 (in an article on the library published by Rissalat al-Maktaba, 8 (4) Dec. 1973) as comprising 10,694 volumes (4,815 in Arabic) and 34 periodicals, but the J.L.A. 1975 survey gives 11,883 volumes, including 5,028 in Arabic. Thirty-two seats are available for readers. There is no children's library. Two half days are reserved for women out of a total of 54 open hours per week. There is a small, but efficient, binding workshop; the cost is only 70 to 90 fils per volume for "perfect binding" or 120-140 fils sewn (10 fils = 3.3 U.S. cents). Here, as in Amman, the English language collection is old; the World Book Encyclopaedia is from 1966, and the Funk & Wagnalls Encyclopaedia from 1952. The library is on the first floor of a building on a side-street near the municipal building in a central quarter, but somewhat hidden from those who do not know of its existence; it is the fourth site occupied by the library in 19 years. According to figures given by the librarian, 2,359 readers borrowed in 1975 a total of 4,895 books in Arabic and only 186 in English. The very low proportion of English loans is understandable, owing to the antiquated nature of the collection.

169. There are about ten other municipal libraries. The consultant tried to visit the Aqaba public library, but it was closed on Thursday afternoon and Friday morning. The book collection totals some 3,300 books according to Parker and 2,300 according to the J.L.A. It is situated in the municipal building, with closed access; it was created about 1967 or 1968. The municipal libraries at Ma'an, Mafraq and Salt are not included in the J.L.A. survey, so the only data available for them are in the Parker report, to which the interested reader is referred. Information appears in both sources on libraries at Zarqa and Wadi El-Seer. There is also a new library (1974) at Ramtha.

170. The J.L.A. was informed, when its Council organized a meeting to discuss the library situation with me that a new municipal library was being formed in a small town near Mafraq, Weir Mushayar El-Sahrhan. The 1955 municipal law authorizes the creation of libraries by municipalities, but does not oblige them to maintain them. The general consensus among J.L.A. members is that public libraries are neglected by municipalities, which have other, more pressing priorities (roads, water, etc.) - and very small budgets. In these circumstances, the J.L.A. theory is that public libraries would better be taken over by the State, as is already the case for school libraries. This view was endorsed by the Parker report (p.7) which recommends "that a national public library service be established under the direct control of a government ministry... financed by central government and operating from a headquarters in Amman through a network of local branch libraries", which "would absorb the existing stocks of municipal libraries and supply adequate numbers of new books, and properly trained and qualified staff, to local public libraries, the accommodation for which would be provided and maintained by the municipalities". I am personally against such a fully centralized service, which could stifle local initiative. Instead, I would recommend studying a scheme somewhat similar to the Danish one, adapted to Jordan's situation, by which a

restricted number of public libraries - possibly only three: Amman, Irbid and Aqaba, or adding later on to this list Ma'an and Karak - would be supported by the State as regional libraries, responsible for serving not only their own towns, but smaller towns - and villages - in the area allocated by them. The National Documentation Centre would serve, in this case, as a national lending library for this network, and would be in charge also of creating a central processing unit, like the Library Bureaux in Scandinavian countries, or some State or private (Bro Dart) or co-operative processing units (Ohio College Library Center) in the U.S. The Iranian experience could also be studied for that purpose, as well as some U.S. and British schemes for producing computerized union catalogues, as well as the Swedish Libri scheme. Procedures for securing the participation of regional and local authorities would have to be set up. The selection of books and other materials would be left to the regional librarians, with the co-operation of librarians responsible for local branches. The actual realization of such a plan would have to be extended over several years - maybe ten or even more: two or three 5 Year Plan periods.

171. Bookmobiles are not unknown in Jordan where as early as 1956 and 1960 services largely directed to serving schools were set up at Khalib and Nablus, according to the article of Walid Abdul Hadi ("Mobile libraries", Risalat al-Maktaba, 1 (3) April 1966). The regional libraries recommended above should organize, as soon as they obtain the necessary means, pilot bookmobile services in their respective areas.

172. There are at least four public libraries in Amman which are provided by foreign governments. The oldest and most important one is that of the British Council, created in 1950. It has a staff of four, including the librarian, Mr. Anwar Akroush, who has a M.L.S. degree from the University of Michigan. Its acquisition budget is 6,000 pounds, that is about 4,000 JD. The total area is about 420 m2, including a well organized reading room with open stacks (300 m2). The collection includes some 16,000 volumes, 97 periodicals (but no back issues) 580 records, some films (more on loan from the British Council regional headquarters) and cassettes. There are 28 seats for adult readers in the main Reading Room, plus some armchairs in the periodicals room, and only 4 seats in a very small children's area. About 3,000 registered readers, who pay 1 JD per year (reduced to 500 fils for students and teachers), borrow some 37,000 books a year.

173. The United States Information Services occupies about 200 m2, with a rather small but well chosen collection of about 3,000 books, 152 periodicals, a good reference stock, and a computerized catalogue (the only one in Jordan).(1) It is also the only place in Jordan where one can find video-cassettes (some 190), supplementing the film library. The Librarian, Miss Hanneh Majaj, was the very first trained librarian in Jordan, as she went to the United States in 1954-1956 and studied library science there. She was the "Founding Mother" of the J.L.A. and came to USIS in 1958. The acquisition budget is $U.S. 1,500. There is a series of microfiches coming from ERIC (educational research), maintained in collaboration with the Educational Documentation Centre at the Ministry of Education, the New York Times on microfilm (since 1975) and a microform reader-printer, probably the only one in Jordan.

174. The French Cultural Centre was opened in 1964. Its library is rather crowded in about 130 m2 for some 8,900 volumes, 12 periodicals, and 15 seats. A small number of readers (about 150) are, however, heavy borrowers

(1) A first edition was prepared in June 1975; the second - and current - edition was issued in April 1976. Separate author, title and subject parts are printed, on listings made at the Arab Bank, in six copies. It will be updated three times a year.

(some 7,000 loans per year): they are mainly from the French and Lebanese colonies. The Centre made a gift of about 300 volumes to the University Library. It has a film library, with films coming from the regional French centre. The acquisition budget is 10,000 FF. There is no specialized personnel; the librarian also has other functions and is not professionally trained.

175. The German Goethe Institute has a small library of some 2,000 books, mainly for the use of German people at the Embassy, etc., but it organizes lectures by German doctors, engineers, etc.; some are mimeographed for distribution to Jordanian specialists.

176. On the whole, and even taking into account the valuable addition of these foreign collections, the total stock of Jordanian public libraries is very low, some 121,000 volumes in all - and among them about 82,000 or more than two-thirds of the total are in Amman. This represents some 0.06 volume per inhabitant, to be compared with the usual norm of 3-4 volumes per inhabitant in developed countries. This gives some indication of the "information gap" between the rich and poor sections of our world. Even if we take the IFLA norm of two books per literate person (for developing countries), and accepting the usual estimate for this literate population in Jordan of 60% of people aged 12 and above - that is, roughly, 700,000 persons, we obtain a ratio of 0.17 volume per literate person (neglecting the children under 12, whose needs, however, are certainly not negligible). This means that to arrive at the IFLA norm, Jordan would have to multiply by about 12 its present stock of books in public libraries.

School libraries - media centres

177. I assembled a rather impressive mass of data on school libraries, owing to the courtesy of Mr. Akhras and Mr. Foudeh, to whom I am indebted for arranging visits to several school libraries in Amman and Irbid, as well as for statistical material; in addition, the Directors of the Directorate of Educational Planning and Research and the Directorate of Curricula and Teaching Aids at the Ministry of Education acquainted me with the work in their respective fields. It is impossible to give more than a very sketchy general picture of the situation, which would deserve a whole special report.

178. Contrary to the now general tendency, in developed as well as in many developing countries, the collections of school libraries in Jordan are restricted to printed materials, and the various other media ("non-book materials") are completely separated. This seems to me an anachronistic situation, even though many efforts are made to provide secondary schools with slides, films and sound records. A remarkable small workshop at the Directorate of Curricula and Teaching Aids makes anatomical, geographical and other models using sponge as a material instead of plastic, in a most economical way (Mr. F. Abuzaiton).

179. According to the latest available statistics, for 1974/1975, there were in Jordan 2,232 schools of all types in the kindergarten, primary, "preparatory" and secondary cycles of these 260 or about 11% had at least one "library room". However, the distribution of these library facilities is very unequal. Five per cent of the 160 kindergartens (which are entirely private) have at least one library room; 2.8% of the 1,132 primary schools are in the same situation, as well as 10% of the 717 preparatory schools, and it is only at the secondary level that the proportion becomes really significant: 53% of 189 schools. There are some variations according to the responsible authorities: 23% of the 79 preparatory schools under UNRWA have a "library room"; private schools are in general better off: the respective proportions for them being 17% at the elementary level, 44% at the preparatory level and 91% for secondary schools. Girls' schools are in a less favourable position than boys' schools: the proportion of schools having a library room is here 1.5% at the primary level, 8.8% for preparatory schools and 50% for secondary schools.

180. In 1971/1972, the last year for which detailed statistics concerning secondary school libraries have been published, 41 secondary schools controlled by the Ministry of Education had no library room at all. On the 76 schools with at least one library room, the proportion according to the area of this or these room(s) were the following:

From 5 to 30 square meters:	28 schools = 36.9%
From 40 to 70 square meters:	40 schools = 52.6%
From 90 to 150 square meters:	8 schools = 10.5%

Regionally, the differences were rather striking: 21 of the 42 schools in the Irbid governorate were without a library room, (50%) as opposed to 6 out of 22 in the Amman governorate (27%). Only 42 of the secondary school libraries were "furnished" - that is with special furniture, and there were only 16 full-time librarians in all. From that point of view, at least, the situation seems to have improved during the last five years, as I was told that in 1975 there were 42 schools with one full-time librarian, and 53 in 1976.

181. Again in 1971/1972, the average number of books per secondary school was 1,747 (1,474 in English and 273 in Arabic), ranging from a minimum of 1,173 in the Madaba district (999 in English, 174 in Arabic) to a maximum of 2,187 in the Jerash district (1,931 in English, 256 in Arabic). However, these figures are to be taken with much caution, as no weeding of the collections is done and especially the English language collections are very old. In some cases up to 90% are without any current educational value.

182. Only 58 school libraries responded to the 1975 J.L.A. questionnaire. The average number of books was 3,550, their average number of periodicals 10, and their total staff 55, of whom 30 were "trained". Training for school librarians is in general very scarce. Since 1959, the Ministry of Education has organized three-day-courses (some eight or nine per year), and since 1958 there have been eight summer schools of two weeks' duration. The last ones had an enrolment of 30 to 40 students, and of the 68 class hours, 32 were devoted to classification (Dewey) and cataloguing.

183. I visited four of the better secondary schools of which three were in Amman (including one private school) and one in Irbid. The Hussein College for Boys in Amman was founded in 1954, and its library in 1967. There is a rather large room of 120 sq. m., with 70 seats, plus a smaller room (about 30 sq. m.) which contains the reference collection and the librarian's desk. The librarian has followed one of the short courses indicated above. For 988 students and 35 teachers (and administrative staff), there are about 7,400 volumes, including 800 in English (almost all out of date), and 15 periodicals (7 in English). There is no catalogue. The impression is rather shabby; the Arabic collection contains many older and poorly printed books. The library of the Sukhaina Bent Al-Hussein secondary school for girls is much better. There was a nice exhibition of Jordanian children's drawings and paintings, selected for an international exhibition. The library, attractively furnished, is smaller than at Hussein College: about 100 sq. m. with 42 seats for 1,055 students and 40 teachers, but the collection (3,500 volumes, incl. about 500 in English) is much more modern and in much better condition; there are 10 periodicals (one in English). Seven hundred books were purchased in 1975, and about 100 were received as gifts. The librarian followed two short courses at the Ministry. There is a good card catalogue. The Islamic College is a private institution, founded in 1947 by wealthy residents of Amman; it has a total of 3,362 students (1,494 in the boys' section, 765 in the girls' school, 528 in a co-education section and 585 for the kindergarten) which makes it one of the biggest in Jordan. There are 160 teachers. There is a "main library", with closed access (in contrast with the three other

school libraries I visited), of about 50 sq. m. with very high shelves, and some 12,000 volumes (3,000 in English). A so-called "reading room", 60 m², is also used for conferences, meetings, etc. There is another library for girls, with perhaps 5,000 books, which was closed at the time of my visit. In all, 50 periodicals are received (five in English). In the kindergarten section, there are two small rooms of 25 and 12 m², with 10 seats each, and some hundred books, plus another room for the teachers (10 m²) without books, but I was told that the kindergarten collection included in all some 4,000 volumes, which had been taken away for mending, etc., during the coming vacation time. The whole impression was that of the consultant's own Lycée in Paris some 50 years ago. The Irbid New School for Girls has a room of about 70 sq. m. with 20 seats for 575 students and 31 teachers. There are about 3,800 volumes and 12 periodicals. The librarian, a young woman who followed one of the three-day-courses at the Ministry, is now leaving to study librarianship in Morocco. The collection of books - never weeded - grew as follows:

1935-1940	250 volumes
1940-1945	300 volumes
1945-1950	480 volumes
1950-1955	800 volumes
1955-1960	1,700 volumes
1960-1965	3,050 volumes
1965-1970	3,400 volumes
1970-1975	3,800 volumes

Probably more than one-half of the total collection is now useless.

184. There is no point in evaluating even the best Jordanian school libraries according to the standards used in developed countries, which in the U.S., for instance, indicate, for media centres, one professional person plus two assistants for 250 students, and from 33 to 75 seats per hundred students, 20 recent volumes per student, etc. And, compared with some other Arab countries, like Algeria and Morocco, where school libraries are practically non-existent, Jordan might be considered as privileged. However, there is still need for much progress. And there is an enormous amount of red tape and bureaucratic procedure which seriously hampers the smooth working of these libraries. When a school librarian wants to buy one book, he or she must prepare a list, with the exact price and bibliographic details, send it to the Directorate of the District, which is supposed to check it; it is then transmitted to the Ministry of Education for approval. Then - some months later - the book can be ordered. When it is received, an "entrance document" is to be prepared in 5 copies: 1 for the District, 1 for the Directorate, 1 for the Cashier and 2 for the school. Then this record is copied twice on 2 different registers!!! Besides, if a book is missing, the librarian is personally responsible and must pay for it. This, by the way, is a general practice in Jordan for the libraries depending upon Ministries, which explains that in at least one of these, the shelves are turned against the walls, "closing" completely the so-called "library" and, surely, avoiding any loss as well as any use.

185. School libraries are connected with a "library division" in each district: I visited the Directorate at Irbid. There is, in this district, a "teaching aids" section for audio-visual materials, with a rather poor collection of slides, some records, and a few magnetophones, cameras, models, maps, etc., with one person in charge who is doing his best with what he has at his disposal. The library is in another building (rented) and occupies some 120 m² and has a collection of some thousands of books and pamphlets to supplement the various school libraries, including the primary schools. Many books - most of them unbound and intended especially

for the primary grades - are in very poor condition. Two librarians are trying to keep them in shape, mending them as well as they can. One of their tasks is to distribute the official periodical for teachers, published by the Ministry, and to which teachers are obliged to subscribe. The staff works with obvious devotion, but the net results must be quite limited.

186. At the Ministry of Education, there is - as already noted - a Curriculum and Teaching Aids Directorate, which has a rather good collection of textbooks (mostly Arabic, but also some in English), is active in co-operating with the Jordanian Radio and TV (see para.117) and in preparing models, maps, etc. (see para.178). It is in a separate building, at some distance from the Ministry itself, where there is a Library Division, headed by Mr. Mahmoud El-Akhras, who for eighteen years has tried valiantly to promote and develop school libraries, as well as Teachers' Institutes' libraries.

Academic libraries

187. If we define "academic" libraries as those serving educational institutions at post-secondary level, they are not very numerous in Jordan. Apart from libraries at "colleges" depending either on the Army or the Police, the Military Academy and the Air Academy, on which my information is scanty (J.L.A. 1975 Survey), there are five Teachers' Institutes' libraries, one library at the Institute for Teachers of Agriculture, one at Amman Polytechnic, the complex of libraries connected with the University of Jordan, plus two special schools: the Institute of Banking (see para.130), and the Statistical Training Centre, and two or three libraries which serve medical and nursing students. UNRWA has its own "Educational Development Centre"; in the J.L.A. 1975 survey, it is indicated as having 1,500 volumes (1,000 in Arabic) and 52 periodicals (7 in Arabic), in charge of one "trained" assistant. In addition, one could perhaps count as "academic" libraries, those of the Co-operative Training Centre (founded 1963, 3,400 volumes incl. 2,200 in Arabic, one "trained" librarian), of the Labour Educational Institute (founded 1968, 1,000 volumes, including 700 in Arabic) and of the Institute of Social (formerly Welfare) Service (founded 1966, 1,238 volumes in 1967, 2,821 in 1975 incl. 2,476 in Arabic, 9 periodicals, one "trained" librarian).

188. I was impressed with the two Teachers' Institutes' libraries I visited. The Amman Teachers' Institute for Boys was opened in 1954 with 18 students; it has now 555 students and 36 teachers. The library staff is composed of five plus one typist; the area is 291 m^2 for readers (open access) and only 30 m^2 for the librarian's office, with 110 readers' seats (normal) plus 25 addititional in case of need (frequent). Hours of opening are excellent: from 8 a.m. to 9.30 p.m. on week days, and 3.30 to 9.30 p.m. on Friday. The library is widely used by teachers from outside the school as a kind of central library; the Educational Documentation Centre at the Ministry closes at 3 p.m., like the other administrations. I was told that the stock was about 30,000 volumes (19,000 in Arabic). The acquisition budget is far from satisfactory: 2,000 JD ($U.S. 6,000) for books and periodicals, and only 500 JD for audio-visual materials. The library was aided by the Ford Foundation, which explains that the curve of yearly accessions is very uneven, with some "good" years - 1953/1954, 1959/1960, 1967/1968 and 1969/1970, each with more than 2,000 volumes bought or given - and some "bad" ones: 1957/1958, 1958/1959 and 1960/1961 with less than 500. The average for the last 6 years is only 935 (734 in Arabic). There are 75 current periodicals (35 in English). Compared with the British standards for Colleges of Education, the staff size is satisfactory, there is a shortage of some 41% for the area, some 16% for the number of seats, but the acquisitions budget is less than 10% of that recommended. The English language collection is - as almost everywhere in Jordan (except at the University) - rather antiquated. There are practically no books in other Western languages, maybe a dozen in French. Audio-visual materials are reduced to a minimum, and there is no "school section" (specimens of

textbooks and books for children) as there would be in the United Kingdom or in many other countries.

189. The Hawara Teachers' Institute near Irbid was opened in 1955 as a "Fundamental Centre", it became a T.I. in 1961. It has now 650 students and 31 teachers. There are four staff members (the librarian, educated in Egypt and at the American University in Beirut), two assistants and a typist; the area is about 280 m^2, with 84 seats. The stock is about 18,000 volumes (14,000 in Arabic), with 80 current periodicals (50 in Arabic). The total budget is only about 4,000 JD, including 2,000 for acquisitions, among which 500 for binding. Loans amount to some 5,000/year. The Britannica is the 1960 edition, and the Americana 1966. All in all, it is roughly comparable to the Amman T.I. library, but judged from an article published by Fawzi Hussein in Rissalat al-Maktaba (4 (3/4), 1969) it has made no real progress in the last seven years, as it had at that time, for only 400 students and 35 teachers (a better ratio) 12,421 volumes - 31 volumes/student against 27 now, and a staff of three.

190. The Amman Polytechnic opened in 1976 for men students only; there are now 400 students and a staff of 40, but it is intended for 710 students and a staff of 105. The library is a big room of 210 m^2 having no provision for librarian's office - with 140 seats, but... no books. Five thousand books in English and 700 in Arabic were ordered, but an order of this importance must be approved by the Prime Minister himself, and this approval will take time. The librarian is assisted, for the time being, by two laboratory assistants (since the laboratories too are still in course of installation). There is a not very satisfactory photocopy machine.

191. The Statistical Training Centre, situated in the old building of the Department of Statistics, is very crowded, and its library consists of a small room with some hundreds (maybe one thousand) books, 19 periodicals (7 in Arabic) and is tended by one assistant. The Centre, however, will expand when transferred to the Department's new building, in 1977 or 1978.

192. The University of Jordan is, really, the only institution in the country with a library structure comparable with those of developed countries. It is, in principle, a centralized structure, but the central library is beginning to lose its former monopoly, as new faculty, institute, and special libraries are founded more or less "unofficially". The University was founded in 1962/1963; at that time there were some 10,000 volumes and a staff of two in the library. In 1967/1968, there were 2,207 students, 159 teachers, 37,000 volumes in a library with an area of 715 m^2. In 1971/1972, 3,019 students and a teaching staff of 221 had at their disposal some 90,000 volumes; the library staff of 32 included six qualified people; 745 current periodicals were received (265 in Arabic) (Rissalat al-Maktaba, 6 (3) Sept. 1971). In 1975/1976, I was told that the number of students grew to about 5,600, the teaching staff to about 320. The library (central) is now 6,000 m^2, with a collection of some 150,000 volumes, including 15,000 vol. of bound periodicals, and receives 1,500 periodicals (400 in Arabic, about 1,000 in English). Its staff of from 60 to 70 persons includes seven with professional education and two with "intermediate" level library studies. The total budget of 134,000 JD includes only 38,600 for salaries: a very small proportion by Western standards, and 90,000 for books and periodicals. The technical organization seems good, with standard card catalogues, Dewey classification (adapted) and good furniture. If we compare these figures with, let's say, the Canadian standards for university libraries, we find that the library area is a little less than 60% of the Canadian standard, that the number of books per student which varied from 17 in 1967 to 30 in 1971 and is now about 24 represents about one-third of the Canadian standard (75 vol./student), and the number of current periodicals about 37% of the 4,100 periodicals recommended in Canada for a university somehow larger (7,000 students). The really unsatisfactory

element is the number of professional librarians, one for 800 students, as against one for 300 considered as a minimum in Canada; the proportion of professional librarians in the total staff is about 10% in Jordan as opposed to the recommended 31% in Canada. Nevertheless, the global situation is much more favourable than in the public libraries and media centres.

193. It is not easy to gather information about the other libraries and/or documentation centres existing on the University of Jordan Campus. I briefly described (para.127) the library at the Institute of Public Administration, and mentioned the library and documentation centre at the Faculty of Agriculture (para.58). This library was being transferred to the new building for the Faculty, where I saw good furniture just arriving, but was unable to determine the area and plan of the new rooms.

194. Dr. Adnan Bakhit, at the Faculty of Arts, founded a "Documentation Centre" there. It is, in fact, a kind of special library on the history of Jordan in its relation with Arab culture and with the neighbouring countries. There is a rather small uncatalogued and unclassified collection of books (maybe 1,500), maps, and - what is really the most valuable - a series of microfilms made abroad (Turkey, Spain, Britain...) of archival materials, supplementing another collection, apparently made without any connexion, at the Main Library. The "Documentation Centre" is also entitled to receive archival materials from the various ministries which, according to Order No.61 issued on 20 September 1971, are requested not to dispose of their archives without the authorization of a Committee on which there is one member of the University (Dr. Bakhit). However, for lack of space - and archivists - the files received up to now are, I was told, temporarily, kept in bulk somewhere in the attics.

195. The library at the University Hospital was formally founded in 1973, but is in fact even more recent. It has some 2,000 books (all in English) and 150 current periodicals, a large room (maybe 200 m^2) equipped with very inconveniently high and deep shelves, designed without any concern for library standards by the Franco-Belgian firm which built the whole hospital. There is one librarian, who, while she lacks training in medicine and in librarianship, is efficient and devoted to her work.

196. A new Faculty of Law is to be opened next year, with French assistance. Books (in French) are waiting at the French Embassy for delivery to its future library. I understand that it will be a "reading room" apart from the Main Library.

197. In a way, the library at King Hussein Army Hospital (or Medical Centre) which is not very far from the University Campus, may be counted as belonging to the group of "academic" libraries, as it serves the advanced medical students doing their internship there, as well as the students at the School for Army Nurses. It is a rather crowded area (100 m^2 or a little more, with a very small room of about 9 m^2 for the staff of three, including two "trained"), 2,040 books (40 in Arabic) and 125 current periodicals, among which 29 are also received by the Main University Library.

198. The J.L.A. 1967 Special Libraries Survey mentioned the library of a Nursing College, founded in 1953, with 502 volumes (50 in Arabic) and one "trained" librarian. I was unable to get data on its present situation.

SPECIALIZED LIBRARIES, DOCUMENTATION & INFORMATION CENTRES & SERVICES

197. In 1967, the J.L.A. Survey of Special Libraries (Risalat al-Maktaba, vol.2) mentioned 19 libraries. At present, to the best of my knowledge, there are

about 30 specialized libraries, or documentation/information centres in addition to the "academic" ones already mentioned above. I have already mentioned several of them: those at the Natural Resources Authority (para.62), the Building Materials Research Center (para.69), the Arab Pharmaceuticals Manufacturing Co. and the Jordan Petroleum Refinery Co. (para.76), the Royal Jordanian Air Force Technical Library (para.96), the Ministry of Health, the Pharmacists' Union and the Jordan Medical Association (para.112), the Ministry of Labour and Labourers (para.116), the Parliament (para.123), various Ministries and official institutions (paras.124-128), the Arab Bank and the Central Bank of Jordan (para.130), the National Planning Council (para.144).

200. Generally speaking, specialized libraries and documentation centres in Jordan have valuable materials, but are poorly equipped in crowded premises and are understaffed and usually are without trained librarians or (a fortiori) information scientists. Technically their organization is more or less haphazard, notwithstanding the devotion and good will of their staffs. Their budgets tend to be insufficient. Let us take a few examples from among the more important which I visited.

201. The Natural Resources Authority is, as stated, rich, especially in technical reports of which it has a most valuable collection, which was microfilmed by the Army for reasons of security - but these microfilms are kept in a secret place, and nobody has access to them... Founded in 1966, it had assembled already in 1967 some 6,000 volumes and received at that time 70 periodicals. In 1975, the stock was 11,000 volumes (2,000 in Arabic), but the current periodicals, which had been at a maximum of 75 were reduced to 35, and are now 32, for reasons of "economy". In 1967, there were six "trained" people and two assistants; now, apart from Mrs. Shadieh Mousa, who was trained at Aslib (and is probably the only Jordanian member of Aslib), there are four assistants and two clerks. The premises, in the basement of one of the N.R.C. buildings, are inadequate and very crowded (four small rooms, with practically no place for readers). However, classification (U.D.C.) is reasonably good, card catalogues are maintained, and current bibliographies are issued (see para.55).

202. The Educational Documentation Centre at the Ministry of Education was created in 1964 as a "pilot" documentation unit, with Unesco's aid. Its head, Mr. Helmi M. Foudeh, received post-graduate training at the Aberystwith school in Wales. He is very competent and most devoted, but has only two assistants (one of them followed a two-months technical course) and one clerk. The area - less than 200 m^2 - is insufficient; it should be at least doubled; the furniture is on the whole inadequate. Card catalogues are maintained with great difficulty, due to the lack of qualified staff. Twenty-seven mimeographed issues of an "Educational Information Bulletin" appeared rather irregularly in 150/200 copies (again, owing to the insufficient staffing): No.24 in November 1975, Nos.25 and 26 in March 1976, No.27 in April. The bookstock is about 6,000 volumes (2,000 in Arabic), and there are 230 current periodicals (140 in English, 90 in Arabic). There is a reader-printer and a photocopying machine (old). By arrangement with the USIS library, the Centre is entitled to receive the ERIC microfiches. But the acquisition budget is very low: 500 JD ($U.S. 1,650) for books, 700 JD ($U.S.2,310) for periodicals; 3,500 JD for materials.

203. The library at the Department of Statistics - in the same building as, but separated from, that of the Statistical Training Centre (see above, para. 191), is also crowded (some 50 or 70 m^2, with stocks of the Department's own publications in addition to foreign statistics received by exchange) and has one untrained assistant.

204. The Building Materials Research Centre has a small library (area about 35 m^2) with some hundreds of books and reports, 32 current periodicals, and

two assistants. It is insufficient to serve the needs of a centre which might - and ought to - expand as research in this important field is developed.

205. The Department of Antiquities at the Ministry of Tourism and Antiquities has one of the oldest libraries in Jordan, as it began before World War II. Reorganized about 1950-1952, it is in a 35 m^2 room, and has the librarian's desk and a few chairs around a big table for readers where there is also a Kodak reader for microforms. In the 1967 J.L.A. survey, it was indicated as having 2,010 volumes (460 in Arabic) and receiving 36 periodicals (13 in Arabic); in the 1975 survey, it is credited with 1,610 books (460 in Arabic) and 80 periodicals (10 in Arabic). My own count is about 3,000 volumes; and according to what I was told, the number of current periodicals would be 165, mostly received in exchange for the Department's publications. The acquisitions budget is 500 JD ($U.S. 1,650). The librarian was trained at one of the J.L.A. training courses in 1973-1974; there is another staff member who was abroad at that moment. Apart from the library, there is at the Department an interesting "Registration Centre" with eight people working at describing some 300 archaeological sites on cards.

206. The American Center of Oriental Research has a small but very good library; it is the seat of the Friends of Archaeology (see above, para.122). The Center has also an extensive collection of pottery, from which it intends to form "boxes" as educational material to be circulated on loan to schools - a very interesting initiative.

207. I already mentioned the Central Bank Library (para.130), but it must be recalled that it is really one of the few well organized, well furnished and efficient documentation units in Jordan.

208. The Directorate of Agricultural Research and Guidance has a library which is situated near (some 500 m) the University of Jordan Faculty of Agriculture and its new library. Apparently there is no relation between these two institutions, which is an example, among many, of the fragmentation and lack of co-operation between Jordanian documentation units. Organized around 1954-1958, it has 17,747 volumes (1,800 in Arabic) and receives 86 periodicals (4 in Arabic). As the library was closing when I arrived, I could not obtain much information. It appears more spacious than the majority of specialized libraries: maybe 200 or 250 m^2.

209. The Royal Scientific Society Library is a special case. Created in 1970, at the time of the founding of the R.S.S. itself, it had great ambitions to become the Jordanian library for science and technology. It has good and spacious premises, with quite modern furniture. It had as its first librarian a highly qualified and efficient man, who left to take a responsible position in one of the Gulf States; he was replaced by Mr. Farouk Mansour, who was there for two years before returning to the University of Jordan Library. The present librarian has less formal professional education; he has a staff of nine, including one typist and one clerk. The book collection includes some 19,000 titles in 26,000 volumes. It is said that the library "has subscribed to 900 periodicals" ("A request for the establishing and financing of a national library for sciences and technology", restricted document, mimeographed, January 1976, page 2). In fact, the first List of periodical holdings, in 1972, included 1,302 numbered entries for non-Arabic periodicals, among which 1,053 were currently received by subscription, and 176 numbered entries for periodicals in Arabic. The second edition of the list, in August 1974, shows that only 500 titles were then regularly received, and 125 irregularly, for non-Arabic periodicals; the number of Arabic titles being then 56. So one can conclude that subscriptions were reduced by approximately one-half, the library receiving at that date a little more than 45% of its list of two years earlier, so far as non-Arabic periodicals were concerned. In addition, the list of theses indicates holdings of 333 titles,

including 73 in microfilms, which are probably also counted in the indicated stock of 130 microfilms plus 120 microfiches. The total budget for 1976 was 32,000 JD, which is less than one-third of the sum spent for acquisitions alone at the University of Jordan. Among the periodicals (non-Arabic) currently received in 1974, 66 titles were also received at the University library, which is less than one mile distant, and by far more accessible, as access to the RSS is rigorously controlled. Judged from an objective point of view, it seems most unfortunate that the decision was taken to organize the RSS library independently of the University Library, as their collections are in fact complementary, the more so as both institutions are trying to collect Jordaniana, the RSS having published a very useful list of books and reports on Jordan held in its own collection (which, however, is by no means complete; for instance the N.R.A. is much richer for all which concerns geology, mining and water). The University's Main Library is crowded with flocks of students, but the RSS library has practically no users at all, except the research staff of the Society who could easily have received special privileges for borrowing materials from the University Library... External use is minimal and practically restricted to the collection of standards and specifications which is, I was told, unique in Jordan, much more complete (surprisingly) than that at the Directorate of Standards of Specifications. Microforms are not used, as (A request..., p.6) "the library does not have the equipment to read them". It can be added that the R.S.S. library is the only one in Jordan using the Library of Congress classification.

ARCHIVES AND RECORDS

210. I made no special study of the archives and records situation. Apart from the Prime Minister's Order No.61 mentioned above (para.192), there are no regulations on this subject, and each administration is following its own routines. I visited the archives at the Irbid Directorate of Education, which are kept on wooden shelves and in rather shabby files, in three small rooms. It is said that there are rather extensive archives materials at the Royal Court, and that H.R.H. Crown Prince Hassan has a project for founding there a kind of Royal Archives, which would include the valuable personal library left by King Abdullah, many of its books containing manuscript annotations by the King himself.

MUSEUMS, ANTIQUITIES, SITES

211. Jordan is one of the richest countries in the world for archaeology, and one still virtually virgin. As already mentioned, the Department of Antiquities is subordinated to the Ministry of Tourism. Up to very recent years, the digging work has been undertaken by foreign missions: German, English, Italian, and more recently also American, French and Turkish. Now, there is a small but good archaeological department at the University of Jordan, for the moment at the B.A. level, but intending to add an M.A. programme in the coming years.

212. The Amman Archaeological Museum was opened in 1951. It is situated within the area of the Citadel. It is rather small (some 400 m^2); presentation is good, but explanations are scanty or even missing. There is only a typed "catalogue", a copy of which is given on loan to the interested visitor. There is a project in course of implementation for building a new Museum, but most unfortunately it has been chosen to build it again on the Citadel site, in spite of the fact that this space should certainly be left free for digging (which has up to now been reduced to a minimum, the work begun by the Italian mission before World War II not having been resumed).

213. There are two Folklore Museums in Amman. One, practically unknown, is situated in Jebel Webdeh, in the Department of Culture and Arts of the

Ministry of Culture and Information, Folklore Section, headed by Mr. Nimr Serhan, the leading authority on Palestinian folklore - a very enthusiastic, energetic and efficient person. There are three small rooms, and only two dresses, for instance, can be shown, for lack of space and (especially) mannequins. The budget is extremely small (see above, para.147). The other one is near the Municipality, in a building recently inaugurated within the area of the Roman Amphitheatre (which, by the way, should be freed for excavations aiming at restoring the whole section of the Roman town between the Forum and the Citadel); this would entail razing the present Municipality and Public Library buildings). It holds a small but most interesting collection well presented - again, as for the Archaeological Museum, without guide and with a minimum of explanatory notices. There is no library.

214. There are a number, maybe half a dozen or more, private collections, especially of dresses: I was told that Mrs. Widad Qa'war has a collection of 800 to 900 folkdresses.

215. I discussed with Mr. Serhan the possibility of creating in Jordan something like the Senegal Cultural Archives (Archives culturelles du Sénégal), a remarkable institution, using all available means (photos, films, records, videotapes, as well as collections of objects) to get a comprehensive picture of rites, ceremonies, etc. (a similar endeavour is now in course in Brazil). He was very enthusiastic about the idea - but the problem is, at present, lack of funds and equipment.

216. Preservation of sites was much neglected in the past and I have already alluded to the danger of plans now in course of implementation.

217. Notwithstanding the fact that it concerns another Division of Unesco, and was not included in the terms of reference for my mission, I recommend that a consultant mission be planned by Unesco, for the study of ways in which the archaeological treasures of the country can be protected from short-sighted commercial (tourism) interests, and action be taken to helping the Government preserve a cultural heritage in great danger of early and irreversible disappearance; this also concerns folk customs and works of art.

THE INFORMATION SYSTEM

218. There is, in fact, no information system properly speaking in Jordan. Archives, libraries, museums, information services just grew, in response to local, particular needs, or initiatives. There is no co-ordination - except in the case of school libraries - and no global policy. On the contrary, sometimes the external observer gets the feeling that unnecessary and even detrimental duplication of efforts has occurred (see para.209). It must be said that Jordan is not alone in this situation, which is common to many developing countries, and even - up to very recent dates - in a majority of developed countries as well. Under these conditions, this chapter includes a short description of some attempts made, within Jordan and its relations with the exterior world, towards co-operation and co-ordination of efforts.

Co-operation and co-ordination: inside Jordan

219. Inter-library loans are not common - one could even say that they are exceptional. The only modest use of that practice that I heard of was at the Central Bank (see above, para.130).(1)

220. Union catalogues do not exist. However, a project for a Union list of serials was studied for some years by a Committee at the Jordan Research Council; it did not materialize for lack of funds.

221. However, Jordan is fortunate in having one of the most active, and probably the oldest Library Association in the Arab world: the Jordan Library Association (J.L.A.), which has been mentioned many times in this report. J.L.A. was established on 19 December 1963, on the initiative of Miss Hanneh Majaj, who secured the co-operation of Mr. Mahmud El-Akhras when he returned from abroad: they convened a handful of librarians with modern ideas, and the creation of an Association was decided. It organized the First Library Conference on 29-30 October 1965, and on this occasion the periodical Rissalat al-Maktaba published its first issue; it has been regularly issued as a quarterly ever since, with English summaries beginning with No.2 in January 1966. Membership of the association was 237 in 1969, including 104 in the West Bank. It grew to 250 in 1970, and has 382 members in 1976; including 55 libraries, as institutional members, and a number of non-librarians, persons interested in libraries or sympathizing with the movement. The number of subscribers to Rissalat al-Maktaba was indicated as 336 in 1969 and 480 in 1971. This periodical is the most valuable information source on libraries and documentation in Jordan.

222. I have already mentioned the surveys made by J.L.A. in 1967 for public libraries and special libraries. Mr. Al-Akhras prepared another survey of school libraries (in public schools) in 1972, which was also published in Rissalat al-Maktaba, vol.7, No.2, and which I used above (paras.180-181). A new survey, this time covering all kinds of libraries, was conducted in 1975, with the aim of preparing for publication the first Directory of Jordan libraries, which is to be issued shortly, under the editorship of Mr. Sudqi Dahbour with the help of Fawzi Shobayrah. Still another survey is in preparation concerning financial data on library budgets and salaries, etc.

223. J.L.A. is now housed in a rented house of its own, where its library has been installed: it is a rather small but well chosen collection of professional books and periodicals, mainly in English.

224. J.L.A. was instrumental in bringing to Jordan, with the aim of the British Council, Mr. J. Stephen Parker, whose "Proposals for library development in the Hashemite Kingdom of Jordan" were repeatedly mentioned above as "the Parker Report". The mission had among significant results the incorporation in the 5 Year Plan document of a paragraph on a "public library network" (see above, para.147).

225. Another follow-up of the Parker report was a meeting of a Committee of representatives of the Ministries of Education and of Municipalities and Rural Affairs, of the National Planning Council, the Municipality of Amman and

---

(1) Both Mr. Mo'az at the Municipal Library and Mr. Farouk Mansour at the University Library mentioned to me that there were "informal" schemes of inter-library loan: librarians know their collections, and occasionally phone to get a document in another collection. But at the King Hussein Medical Centre, the staff were quite unaware of the existence and even the possibility of inter-library loans. One must not forget, however, the institutionalized loans made by the Library and Audio-Visual Divisions at the provincial Directorates of the Ministry of Education (see. para.185).

the University of Jordan. The first meeting, in April 1976, discussed the public library situation and library education.

226. J.L.A. was from the beginning convinced that the question of library education was a most vital one for Jordan - as it is everywhere. Here again, it practised the policy of "self-help": it set up a Course in Librarianship, starting in 1966. Table 13 gives the indications which I found on this course in Risalat al-Maktaba. The intention of J.L.A. is now to expand this short course into a regular one-year course at the library technician level. A classroom is available for that purpose in the new J.L.A. building; practical work will be done in libraries.

TABLE 13

Training courses organized by J.L.A.

Number of course	Year	Dates	Number of students	Diplomas awarded
1	1966	-	-	-
2	1969	29 March-22 May	22	-
3	1970	2 March-2 May	36	-
4	1971	25 April-25 May	23	18
5	1972	3 March-30 April	64	62
6	1973	3 Feb.-28 Feb.	30	-
7	1974	30 March-8 May	60	-
8	1975	5 April-21 May	79*	76
9	1976	-	ca.90	-

* 82 at the beginning of the course.

Up to 1972, the J.L.A. course comprised 60 lectures of one hour each; from 1975, it became 90 hours.

227. J.L.A. was also instrumental in preparing working tools for the profession: an Arabic translation of the abridged D.D.C. (Dewey), a list of subject headings to supplement the Sears list, and translations of ISBD for monographs and serials into Arabic.

228. Finally, it prepared a proposal for a law on legal deposit (see above, para.159); it helped Mr. Akhras in publishing his Jordanian bibliography (para.160), and it co-operated with the Jordan Research Council in preparing proposed bylaws for a kind of Jordanian library network.

229. As acknowledged (paras. 11-12), J.L.A. helped me very much during my mission. It organized two meetings - one at the beginning of my sojourn in Amman, and one at the end - with its Council for discussion, plus a lecture, which also gave opportunity for exchanging views. It permitted me full use of the manuscript of its 1975 survey. Indeed, it was anxious to co-operate in every possible way.

230. I am fully convinced that J.L.A. must be in the future one of the "pillars" on which a real information system in Jordan can be built. It is to be regretted that political leaders of the country have not up to the present been

more inclined to use fully the potential which J.L.A. offers, for developing library and information services in the country. There are signs that this may change now; the fact that H.R.H. Crown Prince Hassan received the officers of J.L.A. with Mr. Parker at the end of his mission is encouraging.

Co-operation and co-ordination with the exterior world

231. This section of my report will be very short. In fact, the impression one gets in visiting Jordanian libraries and information services is that they exist in a kind of "vase clos", and that international contacts are few.

232. Unesco sent its first mission in library work to Jordan in 1956-1957 (Mr. Bonny, from New Zealand). It helped organize the Irbid Public Library, and later the Educational Documentation Centre. There have been Jordanian participants at Unesco - organized meetings for librarians from the Arab region as well as those under the auspices of ALECSO.

233. As indicated before (para.69), Jordan hosts one of the "regional" centres connected with IDCAS - the Building Materials Research Center.

234. So far as I have been able to learn, there is now no participation by Jordan in any international network for scientific and technical information, with the exception of what the Jordan Research Council has done in relation with the INIS system in Vienna: it received and preserved the whole set of publications coming from the Vienna Agency and the nomination of the Library of the Faculty of Agriculture at the University to undertake AGRIS responsibility.

235. Bilateral contacts are somewhat more developed. The British Council, in particular, helped J.L.A. in organizing a visit of United Kingdom libraries by a team of Jordanian librarians and also sponsored the Parker mission. I already mentioned the co-operation between USIS and the Educational Documentation Centre concerning the ERIC microfiches. The French Cultural services provided books for the University of Jordan, and are now helping to build up the new library of the Faculty of Law; they also gave a scholarship for an employee of the Amman Public Library to study at the Unesco-sponsored Post-Graduate Course in Information Science in 1976/1977. Scholarships were provided by the Jordanian Government for some nine trainees at the School of Library Science, University of Cairo. A number of Jordanians went - either with scholarships or by their own means - to the American University at Beirut for training in librarianship.

236. J.L.A. has been a member of IFLA since 1967.

III. RECOMMENDATIONS

237. A number of specific recommendations have been presented in various parts of the present report. Here, I will reassemble and summarize them in a more systematic way, to form a kind of guideline for planning what could become a "global information network" in Jordan, and for delineating the rôle which the proposed National Documentation Centre could play.

OVERALL POLICY, BUDGETS, PLANNING

238. What is most needed in Jordan - as in many other countries - is an overall policy covering the whole field of information services and facilities. Decision-makers, at the highest level, have to be convinced that such a policy is indispensable for the development of the country. Without such a political will, nothing will be achieved.

239. Such a policy will involve investments. As stated (para.136), the present budgets for libraries, documentation and information services in Jordan are at a very low level, with the exception of the University of Jordan. Acquisition budgets (paras.167-168, 169, 188), are often only one-tenth to one-hundredth of what could be considered as a minimum in developed countries. The Parker report proposed spending as capital investment a little less than 350,000 JD in five years for developing a "National Public Libraries Network" (Appendix A.1). That would make about $U.S. 231,000 per year - something like 10 cents per inhabitant per year. In my opinion, this estimate would have to be substantially increased if the Government really intends to develop public libraries to respond to the actual needs. Moreover, public libraries - however important they are - cannot stand alone: budgets for media centres in schools and for sectoral information centres would also have to be raised. I will not attempt to present definite figures: as proposed (para.134) the future National Documentation Centre will have to conduct a financial survey of information facilities in Jordan, and to prepare detailed proposals for funding, which would have to be included in a revised version of the 5 Year Plan (as it was proposed and accepted at the Jordan Development Conference that the Plan will be revised on a yearly basis to take into account necessary changes and adaptations).

240. As indicated (para.147), libraries, documentation and information services, etc., are more or less neglected in present Jordanian planning documents. If an information policy is to be adopted, it is obvious that it must be reflected in planning - on the national as well as on the regional and urban levels.

INFRASTRUCTURE

Transport

241. As indicated (para.97), there are many difficulties at present in getting books and other materials from outside Jordan, due particularly to the congestion of port facilities at Aqaba. It might be advisable to study the possibility of increasing the use of air transport for that purpose, perhaps by arranging special rates with the Jordanian Airline for the National Documentation Centre. Inter-library loans would be facilitated if - as in Switzerland - free postage could be obtained for this traffic. It would also be useful if the NDC could get a special truck for inter-library loans in the Amman metropolitan area, as is usual in American cities, as well as in Paris (CNRS). The use of bookmobiles should be revived in public libraries, with bookmobiles equipped for direct use (and not simply for carrying cases of books).

Communications

242. Telex should be used more extensively for communication among libraries, and fax (telefacsimile) facilities should be provided. Data transmission possibilities, which are at present envisaged (see para.99) should take into account the needs of libraries and information/documentation services.

Computers

243. The National Electronic Computer Center which is to be developed according to the 5 Year Plan (see para.100) would have to be connected with NDC by terminal(s). The possibility of linking NDC with outside sources of information through on-line connexions should be investigated (para.101). It is not advisable to envisage designing special programmes for computerized library/information activities; instead, it is recommended to make use of existing packages. The NDC would have to study, in collaboration with the NECC (National Electronic Computer Center), which packages are best adapted to its functions.

Publications

244. The National Documentation Centre should study various solutions for introducing "small offset" printing facilities in Jordan (see para.83).

INFORMATION SUB-SYSTEMS

Public libraries sub-system

245. Public libraries are probably the weakest component of the whole information system in Jordan. Their development should therefore receive a high priority. Their rôle in education (children's departments), in promoting adult education ("life-long" education), in fighting illiteracy, their service to women, should be emphasized (para.109). The development of regional libraries, on the Danish (and Canadian) model, should be studied; in my opinion, it would be the rôle of NDC to foster the idea of a planned network of public libraries, in collaboration with the Ministry of Interior for Municipalities and Rural Affairs and with the J.L.A., thus avoiding both the dangers of fragmentation on one side and excessive centralization on the other side (see para.170). Provision must be made, in this plan, for a considerable increase in book stock (para.176).

Media centre sub-system

246. The separation which exists at present between "school libraries" and "teaching aids" (i.e. audio-visual materials provision) is to be reconsidered in view of modern conceptions - developed first in the United States, and then in Europe - for making media centres an essential part of schools at all levels (para.106).

247. Unnecessary "red tape" must be suppressed, and more autonomy given to individual media centres and to regional directorates: these should be reorganized on the pattern of foreign experiences, which would, however, need to be studied for adaptation to Jordanian conditions (e.g. Educational Media Centres in the U.S.A. at the state or metropolitan regional level, like that of Pittsburgh or some of the best Centres régionaux de documentation pédagogique in France...).(paras.184-185).

Academic libraries sub-system

248. At present these are by far the best Jordanian institutions in the information field, so that what is needed here is strengthening of what already exists, more than reorganization. Development can proceed along the lines it has followed up to now. However, risks of congestion are already present at the University of Jordan Main Library - involving, as a consequence, another risk: that of fragmentation into many different, isolated units. It is quite sure that the small sum provided in the 5 Year Plan document for extension of the University Library (para.149) is quite insufficient. Besides, the proposed construction of a 1,600 m^2 new building for the Royal Scientific Society Library is not recommended; this would increase the already existing inconvenience of unnecessary duplication between the RSS and University libraries, and accentuate the disproportion between a University library hampered by lack of seating space and a RSS library with too much space for a handful of readers. A better solution must be sought; one possibility will be envisaged below.

249. It is unavoidable that, with the extension of the University of Jordan, specialized library/documentation units will develop. This has already happened for the Faculty of Agriculture. What is to be recommended is to study foreign examples of decentralized collections but centralized processing of

documents and the setting up of computerized union catalogues (University of California, etc.). The two medical libraries near the University Campus would, of course, have to be included in this system, as well as the library of the Directorate of Agricultural Research and Guidance (see para.208). Indeed, it would even be advisable that NDC organize a central processing unit for all libraries, beginning with a union catalogue of periodicals.

250. The problem of the University of Yarmouk is not urgent, as it will be housed, at the beginning, in provisional premises. But these will very quickly be inadequate, and the design of suitable library facilities will have to begin shortly. It is to be recommended that before deciding on the construction of the University buildings, a special study be made of the whole system of library and information units there, if possible with the assistance of Unesco and with the advice of a team of several experts coming from different countries. There might be here a great opportunity for a "pilot" project, as the big area which has been allocated to the University of Yarmouk authorizes the realization of modern facilities.

Archives sub-system

251. It is obvious that the present situation of archives is in need of change, and that new regulations have to be prepared to replace the quite insufficient Order No.61 (paras. 192 and 210). Housing some ten truckloads of documents in attics somewhere at the University of Jordan can only be a temporary expedient. However, as I made no special study of this subject, I only recommend that a survey of archival materials - and records administration in the various ministries, etc. - be made within the not too distant future.

252. The Department of Lands & Surveys records are, as indicated, in urgent need of reorganization (para.163). This is one of the cases, which will certainly become very numerous in the years to come, where archival records and data banks are merging. The solution at the L&S is surely through automation. It would have to be prepared by sending, as already suggested, a team of people from the L&S to Europe to study the methods applied there in comparable situations.

Museums sub-system

253. As mentioned, the location of the new Archaeological Museum should be reconsidered (para.212). Besides, the possibility of expanding the present Folklore Museum at the Department of Culture and Arts into a kind of "Cultural Archives" (para.215) should be thoroughly studied. The quite insufficient provision made in the 5 Year Plan (para.147, p.36) has to be revised. It might probably be possible to attract the co-operation of private collectors, if it were proved that the Government is anxious to preserve the national cultural heritage. The model provided by the French Musée des Arts et Traditions Populaires could also be studied.

Sectoral sub-systems

254. The experience now available from countries which have attempted to create one comprehensive "national documentation centre" embracing the whole range of science, technology and - sometimes - also economic and social information of all kinds tends to demonstrate that this type of centralized organization is no more appropriate for developing countries than for developed ones, and that it was only doomed to failure. It is certainly not to be repeated in Jordan - all the more so as there are already in that country existing "nodes" for a network of sectoral documentation/information organizations. What is to be done is to choose carefully those "focal points" which are to be developed as centres catering for various categories of users' needs. It might prove that for certain sectors no

64

appropriate existing institution could be found; in such cases, NDC would probably have to accept responsibility itself for serving the corresponding categories of users, at least temporarily. But it would be the exception, not the rule.

255. As a prerequisite for creating this network of sectoral information subsystems, NDC would have to prepare a survey of existing facilities (see para.126) for which I do hope that the present report could serve as a point of departure - and conduct studies on "users' needs and habits" in various fields. It is to be recommended that, before embarking on these surveys, NDC complete the roster of Jordanian graduates begun by the Jordan Research Council (see paras.53 and 164). This would greatly help sampling procedures. As indicated (para.150), there are some possibilities for co-operation by interested people at the University of Jordan in the organization of these users' studies. Special attention would have to be paid to the needs of certain categories of the potential public which are at present not adequately served: among others, health services personnel (para.114) and social workers (para.116).

256. NDC would also have to study what rank of priorities should be adopted for its sectoral information development policy (para.43). I attempted to indicate some kind of priority order which could be envisaged. Agriculture is certainly one of the sectors where a major effort has to be applied. The "focal point" is already identified, as the University of Jordan has been designated as the national organ for the AGRIS system (para.99). The Natural Resources Authority would be another centre to which the responsibility for sectoral information in the fields of hydrology, geology and mining could be given, but it would be necessary to make sure that adequate facilities would be available in the new building where the present library is to be transferred (para.62); the budget and staff of the library would have to be substantially increased. Moreover, its co-operation with other documentation/information units - existing or to be created, for instance at the Phosphates Co. (para.76) - would have to be increased. Deserving also a high rank of priority is the construction industry: it is the Building Materials Research Centre which, quite naturally, should be chosen as "focal point" but it would have to be improved so that it could adequately accomplish its information tasks (paras.69, 71, 204).

257. Energy is a sector where existing facilities are scarce. It might require the setting up of new facilities, perhaps at the Jordan Electricity Authority (para.64) or the expansion of the existing ones at the Jordan Petroleum Refinery (see para.63). As solar energy is already within the competence of the RSS, information in this field could be assigned to its library (para.65), and nuclear energy information entrusted to the Accelerator Laboratory at the University of Jordan (para.66). As has been the case in other countries (e.g. in France), a special information network could be formed, using these various organizations, as nodes.

258. Educational documentation presents a problem. In its present situation, the Educational Documentation Centre at the Ministry of Education cannot be properly developed partly for lack of space, but also because of constraints due to the fact that it finds itself within the Ministry building. Besides, its physical separation from the facilities available at the Directorate of Curriculum and Teaching Aids, and the presence - in still another building - of the Library Division suggests that a complete reorganization should take place. It might be advisable to adapt the pattern that existed in France before the separation between OFRATEME and INRDP, that is when there was an Institut Pédagogique National, with the Centres Régionaux de Documentation Pédagogique as its branches. This is, for instance, the present pattern in Algeria. But such a move would have to be carefully studied, maybe with the assistance of experts from Unesco and the International Bureau of Education. In any case, the separation between

what concerns "books" and what is in the domain of "teaching aids" does not correspond to present trends, and should be avoided in a reorganization (see paras. 186 and 202).

259. Economic, commercial and technical information for business firms - especially for small and medium industry - is, as has been indicated (para. 120) not adequately provided. I proposed above the possibility of joining the efforts of the Federation of Chambers of Commerce and of the Amman Chamber of Industry. It might be that such co-operation would be too difficult to achieve, owing to divergences between these organizations. Other solutions have been tried - not always with complete success - in various countries, for instance in Denmark (maybe the best up to now), in the United Kingdom, in Algeria (where INPED, Institut national de la productivité et du développement industriel, seems to be successful). Here it seems that more careful and extensive study of different possibilities would be required before deciding on the best model to follow.

260. It was mentioned (para.148) that environment protection was a field where more information should be provided for decision-makers, and which required special attention. Unfortunately, there is no existing organization to which responsibility could be assigned for this important - and urgent - task. Pending the creation of something like an Agency, or a Council, for Environment Control in Jordan, the NDC might assume directly the function of collecting and disseminating information in this field. This remains an open question, and an important one.

FUNCTIONS AND ORGANIZATION OF THE NATIONAL DOCUMENTATION CENTRE

261. I heard in Amman various opinions on the functions of the proposed National Documentation Centre. In the original "Research, Documentation and Information Centre Project" which was prepared, in 1974-1975, at the Ministry of Culture and Information, it was conceived as having more or less the functions assumed in France by "La Documentation Française" - and which, by the way, were those assigned to the Press and Publications Department of the Ministry when this was founded, some years ago. On the other hand, it seems that as conceived by, for instance, Mr. Suleiman Al-Mousa, NDC would have to be created somewhat on the line of the Public Records Office in the United Kingdom. The opinion of a majority among members of the J.L.A. Council is that a National Documentation Centre is not necessary, but that a National Library is indispensable.

262. The Parker report contained "proposals for the establishment of a National Council for Library, Documentation and Information Services and Archives" (p.13-14), "broadly in line with the recommendations" of a Unesco expert meeting held in Cairo in February 1974 - which were so flexible as to permit almost any kind of structure for the envisaged "central body or agency". I was told by several senior civil servants that a "National Council" of the type described in the Organizational Chart joined to the Parker report (Appendix B), comprising three Ministers, plus the Presidents of the two Universities, the Lord Mayor of Amman, the Presidents of RSS and J.L.A., and that of the J.R.C., would not function. There have been experiences in developed countries which seem to confirm such a view, and to suggest that for organizing what is ambitiously called a "National Information System" committees are helpless. A case to the contrary could equally well be made, based on other experiences.

263. There is much to be said in favour of NDC acting as National Library, and performing the tasks usually associated with such an institution: preparation of the national bibliography of materials coming by legal deposit; responsibility for a central collection available for inter-library loans and for supplying

copies on microforms or by electrophotography; conduct of research in the field of library and information science and awarding of contracts to outside researchers in the same field; preparation of union catalogues, etc. - in short, what the British Library is doing in the United Kingdom, which is probably the model which those in Jordan asking for the creation of a Jordanian National Library are thinking of.(1)

264. However, in a country like Jordan, where so much remains to be done to modernize and develop almost all the components of a "global information system" - except the University Library, it would be quite reasonable to argue that even more extensive functions be allocated to NDC. For instance, a planning function both on the sectoral and regional levels (see paras.43 and 170). It would also be advisable to organize a central processing centre, for which the Scandinavian Library Bureaux, some State and commercial (Bro Dart) centres of that sort in the U.S., the Ohio College Library Center, and even the Iranian National Documentation Center, would provide various models (paras.170 and 249). I would also suggest giving to NDC a supervisory rôle on some important technical matters, especially on building projects involving library/information facilities as well as an advisory rôle for all matters concerning the participation of Jordan in international documentation/information schemes - UNISIST and NATIS as well as sectoral systems like ISORID, DEVSIS, AGRIS, etc. And, as this is a most important matter, I would finally suggest that NDC should be responsible for manpower policy, which will be treated separately below.

265. As for its organization, ideally NDC would be best placed directly under the authority of the Prime Minister or of a Secretary of State, as its rôle should extend beyond the limits of a specialized Ministry. However, one must take into account the fact that at present in Jordan this is not a customary solution. And, as the Minister of Culture and Information has shown a real interest in this project, it would be normal to keep NDC under his control. There are, in fact, some precedents: Radio and TV are under the supervision of the Minister - not the Ministry.

266. Some kind of Advisory Council could be formed, but it seems that it should have as members not the Ministers themselves but their representatives, as well as representatives of other institutions - not only universities, but organizations from industry (Chambers of Commerce) and of professional people (Union of Engineers). In agreement with Mr. Urquhart's document(2) prepared for NATIS, I would suggest that professional people - especially representatives from J.L.A. - would be most helpful within a kind of Technical Committee rather than in the Advisory Council itself.

INFORMATION MANPOWER

267. The real key to the problem of developing better library and information structures in Jordan (as elsewhere...) is: specialized, qualified, well educated manpower.

268. It is not only a question of training, however important professional education might be: it is also a problem of status, career, and salaries. Librarians, archivists and documentalists have at present no recognized status in Jordan, and "information scientists" are unknown there. It should be a priority task of the NDC to study, in co-operation with the Civil Service Commission, how this situation could be changed. As already mentioned (para.54), means of

(1) Indeed, I suggested myself in the present report that several of these functions be entrusted to NDC (see paras.156, 159-160, 166).

(2) National Information Policy (Paris: Unesco, 1976) (COM.76/NATIS/6).

trying to repatriate valuable persons now working in library, documentation and information fields outside Jordan should be explored. The very low level of present salaries is a most serious obstacle to any attempt to organize adequate information services in the country, and measures would have to be taken to improve present employment conditions which would seriously hinder the best development plans (see para.139).

269. I would recommend that, for the time being, training of library "technicians" be left to the J.L.A., which has the required experience in this matter; it could be aided in various ways, especially, of course, by a subvention.

270. What is really urgent is to provide education in information science at the post-graduate level, for which there is no provision at present - except for scholarships for sending a few people abroad. A plan has been studied for creating a course at the new University of Yarmouk. I believe that this would be premature. Irbid is devoid of reference collections, and - in spite of the valiant efforts of librarians there - it will remain, for some four or five years at least, a kind of "desert" so far as library and documentation/information facilities are concerned, in comparison with Amman. The only reasonable and practical solution is to take advantage of the keen interest which Prof. Albert Butros has shown for creating at the University of Jordan an interdisciplinary programme in information science, of the kind which exists in various American universities. Indeed, the catalogue of the University of Jordan, when carefully studied, shows that there are already many courses there which could be used as the basis for such a programme. I would strongly recommend that Unesco consider the possibility of aiding the University of Jordan in setting up a post-graduate course, perhaps within the UNDP country programme for Jordan; this might be possible under the project included in the programme for the next five years relating to improvement of public administration. Indeed, it can be argued that what is most lacking in Jordanian administrative bodies is reliable, well organized information facilities.

IV. SOME UNSETTLED PROBLEMS

271. The present report could not deal with all problems which will confront the NDC when it comes into operation. As a kind of conclusion, I will enumerate in this last part some of these "unsettled" problems.

LOCATION OF NDC FUTURE BUILDING

272. It is to be supposed that NDC, when created, will be temporarily lodged in the building which has up to now housed the Jordan Research Council. However, this will very quickly prove inadequate, once the survey activities which I recommended as a point of departure have been completed. I discussed the question of its future, "permanent" location with Eng. Khairy, and we both met the Chief Engineer of the Amman Municipality, who is one of the best-informed people on extension plans for the capital. My first idea was that NDC should be placed as near as possible to the business centre, which is at present near the biggest Mosque, and the Government centre, which might now be placed somewhere near Jebel Amman 3rd Circle, but which will move to a site near the new Parliament, where a big Administrative City will be placed and the various ministries regrouped. That area could accommodate NDC, and it is not very far from the business centre as well. However, the Chief Engineer at the Municipality warned us that it would soon become seriously congested, and he advised against this solution. The alternative is the University of Jordan Campus, where there is certainly the biggest concentration of scientists of all kinds in Jordan. It would have the disadvantage of being far away (some 10 km. or so) from the

Government/business centre. However, it might prove that at least some business institutions will go in this direction; already the Federation of Jordanian Chambers of Commerce is to be transferred to Shmisani which is about half-way between the present centre (downtown) and the University Campus. This location might perhaps facilitate merging the RSS library and the new NDC/National Library (see above, paras.209 and 248). If NDC could be built somewhere between the RSS and University of Jordan areas, it could serve as a research library and documentation centre both for RSS and for the various units within the University Campus. This would avoid what I see as probably the greatest danger to the future of a coherent NATIS in Jordan - that the RSS library facilities continue to develop as a separate entity, not connected with the rest of the national information network.

THE NDC BUDGET AND A NATIS/UNISIST BUDGET FOR JORDAN

273. I made no estimate of what would be needed, either for developing NDC as the real National Information and Library Centre which is badly needed in Jordan, or for presenting any kind of proposals for financing the development of UNISIST and NATIS systems in Jordan since I felt that existing data was too scanty to provide a basis for serious planning. The responsibility of preparing some kind of prospective plan for financing, not only NDC itself, but the whole series of "components" of what could be, in the next ten years or so, a Global Development Plan for Information Services in Jordan, taking into account both the desirable requirements and the possible sources of financing should be left to Eng. Khairy. It would be helpful if another consultant mission could be organized to work with him and Government authorities on preparing such a detailed, practical plan.

TECHNICAL PROBLEMS

274. I also refrained from entering into the various technical problems which, inevitably, will crop up as soon as implementation of NDC itself and of plans for organizing a NATIS/UNISIST programme in Jordan begin. This is something which will have to be left to Eng. Khairy, with the help of J.L.A. people who already have some experience in the field, and hopefully with some kind of international and/or bilateral expertise. I will just enumerate some of the questions which will need studies first, and then policy decisions:

> design of procedures for the introduction of "automation in libraries" and especially, choice of packages to be used for the various automated tasks which will be performed: production of union catalogues, central cataloguing, processing of tapes coming from the outside, standardization of certain bibliographical tools: more especially, of adaptations to D.D.C. for use in Jordanian libraries, of supplements to or modifications of standard foreign (American) lists of subject headings used by Jordanian institutions;
>
> application of ISBN and ISSN to Jordanian publications...

275. Technical literature on library and information science is by no means absent in Jordan: there are books and periodicals in the field at RSS, at the University of Jordan Library, at the Municipal library and at JLA. But it is dispersed and incomplete. NDC would have accordingly to see to it that the essential periodicals, reports and books are made available in Amman. It would, of course, act as the ISORID focal point for Jordan, as the task of developing information science R&D would be one of its aims.

LEGISLATION

276. There is obviously a need for new legislation on library and information services in Jordan. NDC would have to study this matter, using as a point of departure the various proposals and projects which have been prepared, particularly by the J.L.A. (legal deposit legislation, "bylaws" for the Union Catalogue elaborated with JRC). I would be strongly in favour of a very general "fundamental" law, stating the objective of creating a National Information System, making NDC the central organ of information networks, establishing the principles for the organization of regional public libraries and of media centres, etc., and leaving the details to what we call in French "textes d'application" (decrees, etc.). The fundamental "right to information" should be stated as a basis for the whole organization, as was done in President Johnson's statement on support of library activities in the United States.

V. CONCLUSION

277. I am convinced that Jordan can be an appropriate place for conducting a kind of pilot project for establishing a model NATIS/UNISIST organization, valid at least for the Arab countries. It has an active library association, devoted civil servants convinced of the value of library and information services for development, a progressive University. His Majesty King Hussein and His Royal Highness Crown Prince Hussan have proved many times and on many occasions their will to make Jordan a modern and prosperous nation. For that purpose, development of a strong, progressive national information system is a prerequisite. It will become a source of pride to the Hashemite Kingdom if the country is endowed with such a structure in the near future.

APPENDIX

LIST OF INSTITUTIONS AND/OR PERSONS VISITED

American Center of Oriental Research: Dr. James A. Sauer, Director
Amman Chamber of Commerce: Mr. Said O. Matouk, Director
Amman Chamber of Industry: Mr. Walid H. Khatib, Secretary
Amman Polytechnic: Mr. Sudqi Dahbour, Librarian
Amman Teachers' Institute for Boys: the Director; the Librarian and his staff
British Council: Mr. Anwar Akroush, Librarian, and his staff
Building Materials Research Center: Dr. R. Al-Sharif, Director; and his staff
Central Bank of Jordan: Dr. Jawad Anani, Chief of Research Dept.; Dr. Ali Qandil (Research Dept.); Mrs. Queeny Elissa, Librarian.
Dept. of Antiquities (Ministry of Tourism and Antiquities): Miss Rawia Nabel, Librarian; the Registration Centre
Dept. of Culture and Arts (Ministry of Information and Culture): Mr. Farouk Jarrar (Publications); Mr. Nimr Serhan (Folklore Section)
Dept. of Press and Publications (Ministry of Information and Culture): Miss Bakiza Suleiman, Librarian; and her staff
Dept. of Statistics: Mr. Shuja' El-Asad, Director; the staff of the Training Centre
Directorate of Education, Irbid : Mr. Ahmad Abukaff, Audio-visual Dept.; Mr. Hassan Fahed, Library; Mr. Hussain Mahmoud, Director of Audio-visual and Library Depts.; Mr. Sulaiman Mustaffa, Library Assistant
Directorate of Standards and Specifications: Dr. Ahmad Geneidy; Mr. Mahmoud Khasawnih
Federation of Jordan Chambers of Commerce: Mr. Mahmoud Taijani, Director
French Embassy: Mr. Carpentier, Cultural Attaché; Mr. Guy Jampierre, Commercial Attaché; Mr. Veslot, Director of the French Cultural Center
Goethe Institute: Dr. Richard Schmied, Director; Dr. Dieter Slade; the Librarian
Hawara Teachers' Institute: the Librarian
Hussein College for Boys, Amman: the Librarian
Hussein Medical Centre: Miss Shahnaz Alim, Librarian, and her staff
Institute of Public Administration: Mr. Abdalla A. Zoubi, Director
Irbid New School for Girls: the Librarian
Irbid Public Library: Mr. Hasham Jawher, Librarian; Mr. Anwar Ishaq, Assistant Librarian
Islamic College: the Principal; the Librarian; the Director of the Kindergarten
Jordan Archaeological Museum: Mr. Ibrahim H. Hasan, Assistant Curator
Jordan Co-operative Organization: Mr. Maiwan Doudin, Director
Jordan Distribution Agency: Mr. and Mrs. Elissa
Jordan Electricity Authority: Mr. Marzouk El-Hadid
Jordan Engineers' Association: Eng. Husni Addad, Vice-President
Jordan Library Association: the members of the Council and various officers (see para.15 of the report).
Jordan News Agency: Mr. Yussef Abuleil, Deputy General Director
Jordan Radio Corp.: Mr. Yousef Ammari
Jordan Research Council: Eng. Issam S. El-Khairy, Secretary General and his staff
Jordan University Hospital: Miss Ikram Riad Tawfik, Librarian
Lands & Surveys Dept.: Mr. Badri Al Mulki, Director General; Mr. Kamel Nasrawi, Head of Photographic Section; staff of Registration Section
Ministry of Agriculture: Mr. Usama Bilbeisi, Chief, Extension Division (Dept. of Agricultural Research and Extension); Mr. Shafiq Al-Husseini, Technical Director; Mr. Naji Haddadin; Mr. Abdel Fattah Kadi

Ministry of Education: the Secretary General; Dr. Abdel B. Durra, Director of Educational Planning and Research; Dr. Izad Azizi, Director of Curriculum and Teaching Aids and his staff; Mr. Helmi M. Foudeh, Head, Educational Documentation Centre, and his staff; Mr. Mahmud Al-Akhras, Chief, Library Division

Ministry of Interior for Municipalities and Rural Affairs: Mr. Ibrahim Ghor; Eng. Ishak Rida

Municipality of Amman: Mr. Frank Mo'az, Librarian, and his staff; Eng. S. Hourani, Planning Dept.

National Planning Council: Dr. Mohamed Hussein Ali; Mr. Salim Ghawi

Natural Resources Authority: Mrs. Shadien Mousa, Librarian

Parliament: Mr. Khafil Asfour, Acting Librarian

Royal Scientific Society: Mr. Jamal Bdour, Administrative Director; Dr. M. Munthir Salah, Director, Data Processing Dept.; Dr. Yahya Sheqwara, Economic Research Dept.; Mr. Najdawi, Librarian; Miss Jihad Awad, Cataloguing Dept. of the Library

Sharbain Bookshop: Mr. Sharbain

Sukhaina Bent Al-Hussein Secondary School for Girls, Amman: the Principal; the Librarian

Telecommunication Corporation: Mr. Sahid, Director-General; the Deputy Director-General

United Nations Development Programme: Dr. Aime, Resident Representative; Mr. Manson, Deputy Resident Representative

United States Embassy: Mr. George R. Thompson, Public Affairs Officer; Miss Hannah Majaj, Librarian (U.S. Cultural Center)

University of Jordan:

Faculty of Agriculture: Dr. Qassem, Dean

Faculty of Arts, Documentation Centre: Dr. Adnan Bakhit, Director

Library: Dr. Kamel Asali, Librarian; Dr. Farouk Mansour, Deputy Librarian; Dr. Albert Butros, Dean of Research and Higher Education

University of Yarmouk: Prof. Dr. Badran, President

In addition, a number of persons were seen during the Jordan Development Conference: among them, Mrs. Elizabeth Collard (M.E.E.D., London); Eng. Adnan Fayyad, Akkerprint B.V.; Dr. Gerhard Fischer, Representative, Friedrich Ebert Foundation; Dr. W.A. Wapenhans, Regional Vice-President, The World Bank.